



CITY OF MANCHESTER.

REPORT

ON THE

Health of the City of Manchester,

1938,

BY

R. VEITCH CLARK, M.A., M.B., CH.B., B.Sc., D.P.H.



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PUBLIC HEALTH DEPARTMENT,
TOWN HALL,
MANCHESTER, 2.

25th October, 1939.

MY LORD MAYOR, ALDERMEN,
AND MEMBERS OF THE CITY COUNCIL.

I have the honour to submit my report on the health of the City for the year 1938, which has been compiled in accordance with the memorandum of the Ministry of Health.

The following are the principal facts in the general vital statistics for the year :—

Population.

The estimated population to the middle of 1938 is 747,318, of which 351,999 are males and 395,319 females.

Marriage Rate.

The marriage rate for the year is 17·9. This is a decrease of 1·2 on the rate for 1937 but is 0·2 higher than the average for the last five years.

Birth Rate.

The birth rate 14·8 is 0·5 higher than in 1937 and 0·3 higher than the average of the past five years.

Death Rate.

The death rate for the year is 12·4 and is 1·1 lower than the previous year. The average annual death rate for the past five years is 13·1.

Infantile Mortality.

The rate of 68·8 per 1,000 births is the lowest recorded. It is 5·4 lower than in 1937 and 4·9 lower than the previous five years.

Maternal Mortality.

The maternal mortality rate for the year is 4·25 per 1,000 live and still births compared with 4·19 for the previous year. The average annual rate for the past five years is 4·38.

Cancer.

The cancer death rate is 1·72. This is the highest recorded rate and is 0·06 higher than in 1937. The average annual rate for the past five years is 1·62.

Tuberculosis.

The death rate from all forms of tuberculosis during the year is 0.97, as against 1.04 in 1937. The average death rate for the previous five years is 1.07. The death rate from pulmonary tuberculosis is 0.83 and is the lowest recorded. The death rate from non-pulmonary tuberculosis is 0.14.

The part of the report dealing with the work of the municipal hospitals and institutions consists practically entirely of statistical records. These enable continuity of record to be maintained, but it has not been practical to devote the time necessary to preparation of letterpress in these subjects, owing to the great pressure of work arising from the preparation of the Emergency Hospital Scheme with all that it involved in connection with the state of national emergency which has existed throughout the year.

I have the honour to be,

Your obedient Servant,

R. VEITCH CLARK,

Medical Officer of Health.

PUBLIC HEALTH COMMITTEE,

1938-39.

Chairman :

Alderman R. S. HARPER, J.P.

Deputy Chairman :

Councillor R. G. EDWARDS, J.P.

THE LORD MAYOR

(Alderman E. J. Hart).

Alderman	W. T. Jackson, M.A., J.P.	Councillor	Eveline Hill
„	A. James, J.P.	„	T. M. Larrad, J.P.
„	M. L. Kingsmill Jones, O.B.E., J.P.	„	Sarah Laski
„	Annie Lee, J.P.	„	J. McGrath
Councillor	Hannah Baldwin, J.P.	„	J. H. Meachin, J.P.
„	Nellie Beer	„	S. Meadowcroft
„	J. E. Burgess	„	W. Onions, J.P.
„	A. Cathcart	„	H. A. E. Ramsden
„	Dr. W. Chadwick	„	W. Somerville, J.F.
„	F. Farrington	„	Professor F. E. Tylecote, J.P.
„	Mary A. Gibbons		

GENERAL STATISTICS.

The following are general statistics for the year 1938 :—

Area of the City in acres		27,255
Census population for the year 1931	{ Males .. 360,976 Females .. 405,402 }	766,378
Estimated population at the middle of year 1938	{ Males .. 351,999 Females .. 395,319 }	747,318
No. of persons per acre		27
Persons married per 1,000 of population		17·91
Live Births in the City of Manchester..	{ Males .. 5,659 Females 5,366 }	11,025
Live birth-rate per 1,000 of population		14·75
Still-births	{ Males .. 277 Females 230 }	507
Deaths	{ Males .. 4,792 Females 4,439 }	9,231
Recorded annual death-rate per 1,000 of population	{ Males .. 13·61 Females 11·23 }	12·35
Deaths under 1 year of age per 1,000 births.. .. .		68·84
Maternal mortality (per 1,000 live and still births)		4·25
Excess of registered births over deaths		1,794
Percentage of mortality occurring in public institutions		53·97
<hr style="width: 50%; margin: 10px auto;"/>		
No. of occupied Structurally Separate Dwellings at the Census in April, 1931		177,430
No. of persons per occupied Structurally Separate Dwelling (Census 1931)		4·32
No. of persons per house 1938 (Based on 206,200 houses connected with the water supply within the City)		3·62
No. of new houses erected during 1938 :—		
By Local Authority		2,221
By other bodies or persons		1,688
	<hr style="width: 10%; margin-left: auto; margin-right: 0;"/>	3,909

PUBLIC HEALTH OFFICERS.

(A) Medical.

Medical Officer of Health	.. ..	R. Veitch Clark, M.A., M.B., CH.B., B.SC., D.P.H.
Deputy Medical Officer of Health	..	W. St. Clair McClure, M.R.C.S., L.R.C.P., D.P.H.
Senior Tuberculosis Officer	.. ..	D. P. Sutherland, M.B., B.S.
Assistant Medical Officer of Health— (Maternity and Child Welfare)	..	Nora F. Smith, M.B., B.S., D.P.H.
Assistant Medical Officer of Health— (Housing Survey)	.. ..	A. M. M. Grierson, M.D., D.P.H.
Assistant Medical Officer of Health— (General)	.. ..	C. F. Lynch, M.B., B.CH., B.A.O., D.P.H.

Assistant Tuberculosis Officers	.. ..	5
Medical Officers, Child Welfare Centres (whole time)	..	10
„ „ „ (part-time)	.. ..	10
Dental Surgeons (part-time)	.. ..	2

Abergele Sanatorium.

Medical Superintendent—J. E. Geddes, M.D., CH.B.

One Deputy Medical Superintendent and one Resident Assistant Medical Officer.

Baguley Sanatorium.

Medical Superintendent—H. G. Trayer, B.A., M.B., CH.B., D.P.H.

One Deputy Medical Superintendent.

Two Resident Assistant Medical Officers.

(A) **Medical**—continued*Monsall Hospital.*

Medical Superintendent—D. Sage Sutherland, M.D.

One Deputy Medical Superintendent.

Four Resident Assistant Medical Officers.

Booth Hall Hospital.

Medical Superintendent—W. H. Patterson, M.D., D.C.H.

One Deputy Medical Superintendent.

One Resident Surgical Officer.

Four Resident Assistant Medical Officers.

Withington Hospital and Institution.

Medical Superintendent—J. M. Greenwood, M.D., D.P.H.

One Deputy Medical Superintendent.

One Resident Surgical Officer.

One Resident Obstetrical Officer.

One Assistant Resident Obstetrical Officer.

Six Resident Assistant Medical Officers.

Crumpsall Hospital and Park House.

Medical Superintendent—W. A. Ramsay, M.A., M.D.

One Deputy Medical Superintendent.

One Resident Surgical Officer.

One Resident Obstetrical Officer.

One Assistant Resident Obstetrical Officer.

Six Resident Assistant Medical Officers.

One Resident Assistant Medical Officer for the Institution Mental Wards.

Largho Colony.

Medical Superintendent—J. Shearer, M.B., CH.B.

In addition, there are the consulting staffs of these various hospitals.

District Medical Officers under Poor Law Acts	28	} Chiefly combined appointments.
Public vaccinators	26	

(B) Others.

Lay Administrative Officer—George Ogden, F.C.C.S.

Chief Clerk—David Egerton, M.R.INST. P.H.H.

Public Analyst—Harri Heap, M.SC., F.I.C.

,, ,, (Assistant)—Alfred N. Leather, B.SC. (LOND.), F.I.C.

Sanitary Inspectors.

Chief—Isaac Priestley, M.R.S.I., F.S.I.A.	I
Divisional	2
Senior Housing	I
Housing	9
Special to the Medical Officer of Health	2
Drainage	2
Food and Drugs	3
Smoke	4
Rat Officers	2
Canal Boats	I
Milk Control	3
House Drainage	2
District	44
Poisons and Pharmacy Act and Rag flock	1
Houses-let-in-lodgings	4
Factories, etc. (Women)	2
Shops Act	6
	—
Total	89

Maternity and Child Welfare.

Superintendent of Health Visitors	I
Assistant Superintendents of Health Visitors (one of whom is part-time tutor to H. V. Training Course)	3
Inspector of Midwives	I
,, ,, (Assistant)	I
Municipal Midwives	56
Maternity Nurses	4
Ophthalmic Nurses	3
Centre Superintendents	16
Health Visitors	64
Cleansing Nurse	I
,, (Part-time)	2
Masseuses	9
	—
Total	161

Tuberculosis.

Sanitary Inspectors	3
Nurses	13
	—
Vaccination Officers	4

METEOROLOGY, 1938.

Means of the Monthly Readings from Whitworth Observatory.

	Dry Bulb	Wet Bulb	Humidity	Maximum Temperature	Minimum Temperature	Mean Temperature in Shade	Total Rainfall (inches)	Total No. of Wet Days	Total Hours of Sunshine	Average Mean Daily Temperature 1881-1915 (extracted from the book of normals)	Average Rainfall 1892-1937	Average Hours of Sunshine 1892-1937	No. of Days on which Fog was noted
January	43.0	40.8	82	47.8	38.7	43.3	3.83	24	22.01	39.1	3.08	11.33	3
February	42.7	40.2	78	47.2	38.2	42.7	1.07	12	37.80	40.1	2.40	29.99	0
March	47.5	45.1	82	56.1	42.4	49.3	1.09	10	89.59	42.3	2.31	72.62	4
April.. ..	47.0	42.8	63	54.6	38.6	46.6	0.31	5	110.10	46.8	1.93	113.20	4
May	51.2	47.5	74	60.4	44.6	52.5	3.43	16	138.88	52.6	2.30	143.14	2
June	57.3	53.4	76	64.3	51.3	57.8	3.60	20	127.20	58.4	2.43	150.32	0
July	58.6	55.2	80	65.5	52.2	58.9	4.48	22	101.68	60.8	2.99	137.42	0
August	61.4	57.1	75	68.8	53.4	61.1	2.54	19	137.02	59.9	3.53	120.57	2
September	56.5	53.8	83	64.1	50.7	57.4	1.83	20	76.80	56.4	2.67	98.20	5
October	49.9	47.6	83	56.9	45.6	51.3	6.15	23	71.30	49.8	3.57	55.46	6
November	48.4	46.2	83	54.3	44.1	49.2	4.10	21	54.30	43.6	3.04	18.76	7
December	41.2	39.5	85	45.3	36.5	40.9	3.56	20	17.98	40.4	3.35	7.30	1
YEAR	50.4	47.4	79	57.1	44.7	50.9	35.99	212	984.66	49.2	33.60	958.28	34

The Meteorological Station situated at the Corporation Cleansing Yard, 299, Oldham Road, which has been in operation since 1892, was dismantled in June, 1938. This was necessary on account of further accommodation being required for building purposes of the Cleansing Committee. After communication with the Air Ministry they considered that the records taken at the Meteorological Station connected with the Manchester University in Whitworth Park were sufficient for their purpose.

The extent to which Institutions are used is to some extent represented in the following table :—

TABLE 1.
Death Rates in the Homes of the People and in Institutions
for 5 Years 1934-1938.

YEAR	Estimated Populations to middle of Year	Death rate per 1000 of persons dying in their own homes	Death-rate per 1000 of persons dying in Institutions	Total death-rate per 1000
1934	773,593	6.2	6.0	12.24
1935	776,028	6.3	6.6	12.91
1936	759,058	6.4	7.1	13.50
1937	751,371	6.2	7.3	13.52
1938	747,318	5.7	6.6	12.35

The chief causes of death are shown below for each of the years 1933-1938 :—

TABLE 2.

	1933	1934	1935	1936	1937	1938
Tuberculosis of the Lungs ..	773	751	711	671	664	620
Tuberculosis (other forms) ..	114	125	95	109	119	105
Diseases of the Heart	1961	1728	1697	1881	1944	1781
Cerebral Hæmorrhage, Apoplexy, Hemiplegia	362	366	403	354	277	327
Pneumonia	841	664	769	777	715	582
Bronchitis	551	380	460	508	452	321
Digestive Organs	361	346	376	389	399	365
Atrophy, Debility (Chiefly in infants)	22	32	37	31	17	29
Old Age	353	426	625	660	662	582
Premature Birth	227	207	236	234	213	192
Nephritis and Bright's Disease..	261	257	226	271	233	240
Convulsions	21	32	30	26	36	38
Inflammation of the Brain ..	25	24	28	15	16	17
Diarrhœa and Dysentery	97	132	86	73	81	87
Measles	48	97	98	121	45	57
Scarlet Fever	16	14	15	10	9	9
Whooping Cough	47	35	46	47	53	14
Diphtheria	85	84	57	92	90	54
Influenza	536	89	221	128	304	85
Malignant Disease	1175	1237	1306	1250	1247	1286

INFANTILE MORTALITY.

TABLE 4.

Deaths per 1,000 Births at the ages 0-2 months, 3-5 months, and 6-11 months in successive years.

YEARS	Months of Age			
	0-2	3-5	6-11	Under 1 year
1891-1895 (mean) ..	82.79	40.99	62.97	186.75
1896-1900 (mean) ..	83.44	42.43	66.28	192.16
1901-1905 (mean) ..	81.02	37.52	54.24	172.78
1906-1910 (mean) ..	73.89	29.12	44.27	147.28
1911-1915 (mean) ..	69.23	24.38	39.26	132.88
1916-1920 (mean) ..	58.46	17.72	28.65	104.82
1921-1925 (mean) ..	52.46	15.63	27.38	95.45
1926-1930 (mean) ..	49.77	15.76	22.33	87.86
1931-1935 (mean) ..	49.01	11.92	15.97	76.90
1934	45.29	10.91	12.83	69.03
1935	48.42	10.11	12.77	71.30
1936	48.60	12.52	16.14	77.26
1937	48.35	13.86	13.95	76.16
1938	46.08	10.61	12.15	68.84

Table 5 allows a comparison with former years in respect of the infantile mortality rates from different causes for the whole of the first year of life.

TABLE 5.

City of Manchester.

CAUSES OF DEATH	DEATHS UNDER ONE YEAR PER 1,000 BIRTHS					
	1933	1934	1935	1936	1937	1938
All causes	74·93	69·03	71·30	77·26	76·16	68·84
Smallpox	—	—	—	—	—	—
Chickenpox .. .. .	..	..	..	0·09	..	0·09
Measles	0·63	1·57	1·42	3·26	0·93	1·18
Scarlet Fever .. .. .	..	..	0·18	0·09	0·09	..
Whooping Cough	1·62	1·05	1·60	2·29	2·32	0·36
Diphtheria	0·09	..	..	0·18	0·28	0·18
Erysipelas	0·45	0·52	0·44	..	0·19	..
Tuberculous Meningitis	0·09	0·70	0·18	0·35	0·46	0·45
Abdominal Tuberculosis	0·18	0·09	0·09	..	..	..
Other Tuberculous Diseases	0·54	0·35	0·27	0·35	0·09	0·36
Meningitis (<i>not Tuberculous</i>)	0·27	0·52	0·36	0·44	0·28	0·45
Convulsions	1·80	2·36	2·13	2·03	2·98	3·08
Bronchitis	3·42	1·13	1·60	2·82	1·77	1·18
Pneumonia (all forms)	13·58	7·41	8·78	10·32	12·65	10·98
Diarrhœa and Enteritis	7·83	10·38	6·83	6·09	6·70	7·80
Gastritis .. .. .	..	..	..	0·18	0·28	..
Syphilis	0·54	0·35	0·44	0·26	0·56	0·36
Rickets	0·36	..	0·18	0·09	0·37	0·18
Injury at Birth	2·43	2·27	2·93	3·18	4·09	2·63
Atelectasis	3·06	2·88	2·04	1·23	1·67	2·27
Congenital Malformation	6·92	6·81	7·63	8·38	8·65	7·89
Premature Birth	20·42	18·06	20·93	20·64	19·81	17·42
Atrophy, Debility, and Marasmus Overlying, found dead in bed, and suffocation	1·89	2·79	3·19	2·73	1·58	2·54
Other causes	8·19	8·73	9·32	11·11	9·95	9·07

PUBLIC ASSISTANCE.

On page 12 a table is shown giving the number of persons who were in receipt of poor relief from the Manchester Public Assistance Committee during the last week in each month of the years 1937 and 1938.

Cases maintained by or chargeable to the Public Assistance Committee on the 1st January, 1939.

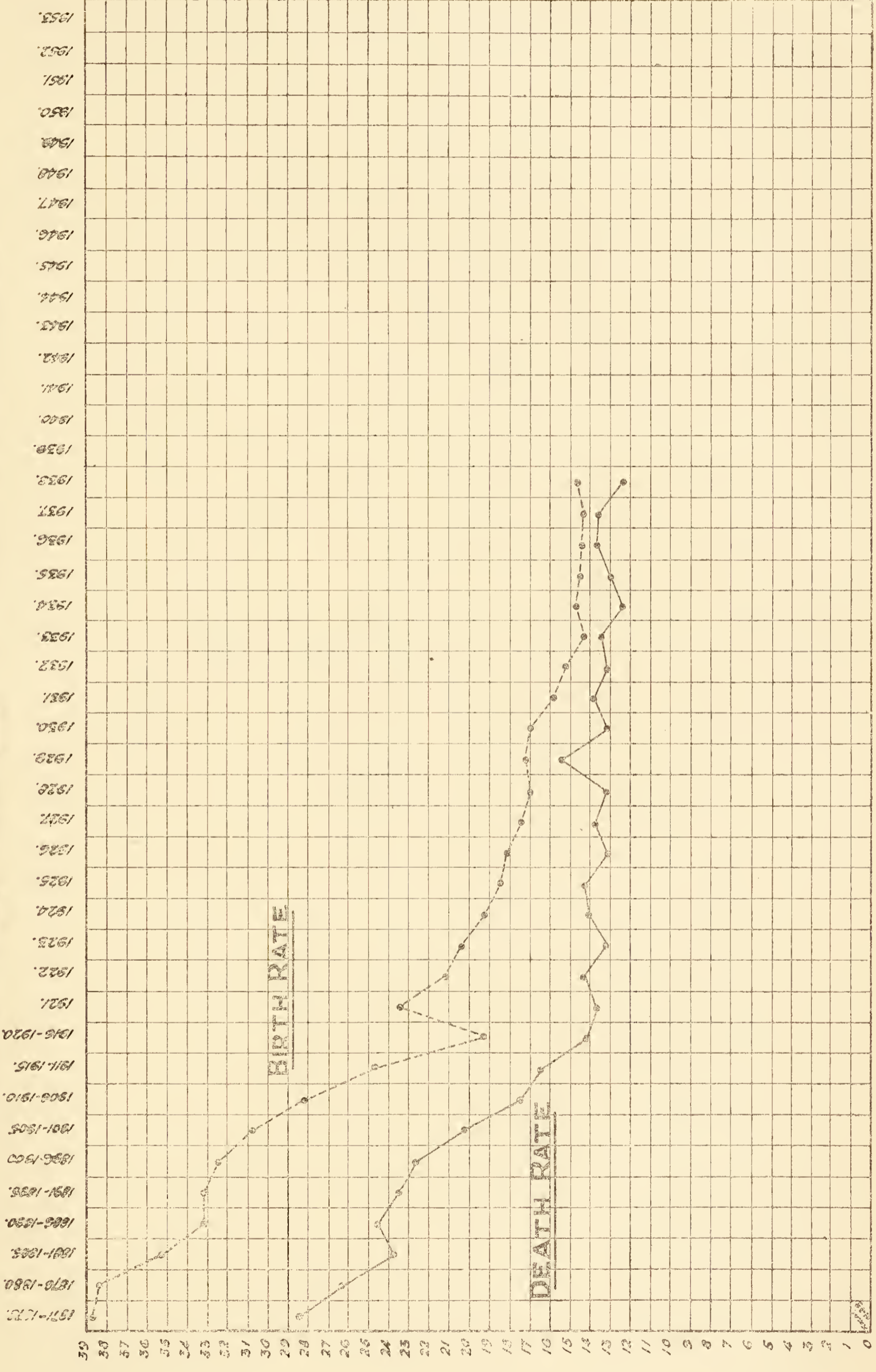
(A) RETURN OF MENTAL CASES.

Institution	Class of Case Maintained	Suffering from Mental Infirmity
<i>1. Establishments</i>		
<i>Belonging to Manchester :—</i>		
Crumpsall Institution	General Hospital and Lunacy	603
Swinton Home	Mentally deficient children..	6
<i>2. County Mental Hospitals :—</i>		
Lancaster	Persons of unsound mind ..	434
Prestwich .. .. .	.. .. .	934
Winwick .. .. .	.. .. .	550
Whittingham .. .. .	.. .. .	238
Rainhill .. .. .	.. .. .	175
Other County Mental Hospitals	.. .. .	17
The Mary Dendy Home, Sand- bridge, Alderley Edge	Mentally defective adults ..	5
Cumnor Rise Home, Botley, Oxford	Feeble-minded girls	2
Stoke Park Colony, Bristol	} Feeble-minded persons ..	{ 20
Whittington Hall, Chesterfield ..			6
Durran Hill House, Carlisle	Mentally defective women .	4
St. Joseph's Home, Sudbury	Feeble-minded young women	1
Total		2,995

THE NUMBER OF PERSONS WHO WERE IN RECEIPT OF POOR RELIEF FROM THE
MANCHESTER PUBLIC ASSISTANCE COMMITTEE DURING THE LAST WEEK IN EACH
MONTH OF THE YEARS 1937 AND 1938.

	1938		1937	
	Indoor (excluding Casuals)	Out-door	Indoor (excluding Casuals)	Out-door
January	2,843	30,933	3,034	41,862
February	2,820	30,743	3,068	41,188
March	2,797	30,439	2,986	40,137
April	2,742	29,996	2,863	31,032
May	2,733	29,393	2,792	30,988
June	2,720	29,525	2,756	29,861
July	2,715	28,986	2,784	29,430
August	2,681	28,921	2,730	28,922
September	2,713	28,993	2,742	29,346
October	2,746	29,289	2,717	29,563
November	2,760	29,598	2,754	30,129
December	2,732	30,179	2,825	30,901

CITY OF MANCHESTER
BIRTH & DEATH RATES PER 1000 OF THE POPULATION



TABLES.

1938

TABLE A.—MANCHESTER, 1938.

Causes of Death at Different Life Periods in the 52 weeks of the Year.
PERSONS.—(MALES AND FEMALES.)

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
		0 to 1	1 to 5											
All Causes	9231	759	234	120	65	143	155	399	525	935	1778	2244	1576	298
A.—GENERAL DISEASES.....	3196	511	111	69	31	73	106	199	231	372	621	591	254	27
B.—LOCAL DISEASES	5066	212	108	39	24	51	40	162	259	515	1094	1450	944	168
C.—OTHER SPECIFIED DIS...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
D.—ILL-DEFINED DISEASES...	629	30	...	1	1	2	...	1	...	2	9	152	330	101
E.—VIOLENT DEATHS	340	6	15	11	9	17	9	37	35	46	54	51	48	2
A.—General Diseases.														
Smallpox..														
{ Vaccinated .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Not Vaccinated .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ No Statement.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vaccinia .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	2	1	1	...	...	...	...	...	...	...	...	...	...	...
Measles	57	13	39	5	...	...	...	...	...	...	...	...	...	...
Rubella .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever..	9	...	8	1	...	...	...	...	...	...	...	...	...	...
Typhus .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	85	3	...	3	...	...	1	3	7	7	16	17	26	...
Whooping Cough	14	4	7	1	1	...	...	...	...	...	...	...	1	...
Mumps .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria...	54	2	16	29	2	3	1	1	...	...	...	...	...	...
Poliomyelitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Fever	19	9	7	2	...	...	...	...	1	...	...	...	...	...
Simple Cont: Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Diarrhoea .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	87	86	1	...	...	...	...	...	...	...	...	...	...	...
Dysentery .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malarial Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trench Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Actinomycosis	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Hydrophobia .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anthrax	1	...	...	...	...	...	...	1	...	...	...	...	...	...
Tetanus	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Syphilis	14	4	...	...	...	...	...	...	1	1	6	2	...	...
Gonorrhoea, Strict: Urethra...	15	...	...	...	...	...	...	...	...	2	8	5	...	...
Puerperal..														
{ Septicæmia	16	...	...	...	...	1	1	11	3	...	...	...	...	...
{ Pyæmia .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Phlegmasia Dol... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Infective Endocarditis	9	...	...	...	...	2	4	3	...	...	...	...	...	...
Leprosy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Psittacosis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	8	...	...	...	...	...	...	1	...	1	...	1	5	...
Septicæmia (not puerp:).....	8	1	...	1	...	...	...	...	2	...	3	1	...	...
Pyæmia (not puerp: ).....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phlegmon	10	1	...	1	...	1	...	1	...	1	3	...	2	...
Phagedæna .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tubercular Phthisis.....	579	...	...	2	7	44	72	119	89	121	97	26	2	...
Phthisis	41	1	3	...	...	2	6	9	6	5	7	2	...	...
Tubercular Meningitis.....	50	5	10	9	8	4	4	5	4	1	...	...	...	...
Tubercular Peritonitis	9	...	3	1	1	1	1	1	...	...	1	...	...	...
Tabes Mesenterica	2	...	...	...	...	1	...	1	...	...	...	...	...	...

TABLE A, 1938—continued

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
		0 to 1	1 to 5											
3. DISEASES OF HEART.														
Valvular Dis: Endocarditis	243	...	1	1	2	5	6	20	30	33	62	44	33	6
Pericarditis	10	...	1	...	...	1	...	...	1	2	3	2	...	...
Hypertrophy of Heart.....	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Angina Pectoris	122	...	...	...	...	...	1	1	1	21	54	33	10	1
Dilatation of Heart	25	1	...	...	...	...	...	...	...	7	3	9	5	...
Fatty Degen: of Heart	24	...	...	...	...	...	...	1	4	5	5	6	3	...
Syncope, Heart Disease.....	1356	4	1	2	...	4	1	11	32	111	303	470	347	70
4. DIS: OF BLOOD VESSELS.														
Arterio Sclerosis	547	...	...	...	...	...	...	1	...	22	91	209	189	35
Cerebral Hæmorrhage.....	302	...	...	...	...	...	...	1	14	18	84	123	56	6
<i>Apoplexy, Hemiplegia</i>	25	...	...	...	...	...	...	...	2	3	3	10	5	2
Aneurism ..	19	...	...	...	...	1	...	...	4	7	5	2	...	...
Senile Gangrene	18	...	...	...	...	...	...	...	...	...	7	10	1	...
Embolism, Thrombosis	241	...	...	...	2	...	2	4	20	62	96	50	5	...
Phlebitis.....	3	...	...	...	...	...	...	...	...	1	2	...	...	...
Varicose Veins	2	...	...	...	...	...	...	...	1	...	1	...	...	...
Blood Vessels (Other Diseases)	36	1	...	...	...	...	...	...	1	14	12	7	1	...
5. DIS: OF RESPIRATORY SYS:														
Laryngitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Memb: Laryng: (Not Diphth:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Larynx (Other Dis:)	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	321	13	3	...	...	2	...	7	14	19	62	95	84	22
Pneumonia { Lobar-Croupous.	283	18	18	3	4	8	4	26	29	56	59	39	18	1
{ Broncho-Lobular.	279	99	53	4	2	3	2	2	12	19	26	36	16	1
<i>"Pneumonia"</i>	20	4	1	...	1	1	...	...	3	5	5	...	...	...
Emphysema, Asthma	24	...	...	...	...	...	...	1	1	1	11	10	...	...
Pleurisy	8	1	...	...	...	...	1	1	...	2	2	...	1	...
Fibroid Disease of Lung.....	4	...	...	...	...	...	...	...	...	2	1	1	...	...
Respiratory Dis: (Other)	44	1	...	...	...	1	1	2	3	7	10	7	9	...
6. DIS: OF DIGESTIVE SYS:														
Tonsillitis, Quinsy	11	1	2	1	...	...	1	...	3	1	1	1	...	...
Mouth, Pharynx .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastric Ulcer.....	94	...	...	...	...	...	4	8	12	19	32	17	2	...
Gastric Catarrh.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stomach (Other Dis:)	11	3	...	...	...	1	...	1	...	...	2	2	1	...
Enteritis.....	18	...	4	...	...	2	...	3	...	2	1	2	4	...
<i>Gastro-Enteritis</i>.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis, Perityph:	41	...	4	3	2	5	1	3	5	5	9	3	1	...
Hernia	37	...	...	...	...	...	...	1	2	6	7	13	8	...
Intestinal Obstruct:.....	42	3	1	1	1	1	1	1	2	3	8	13	6	...
Other Diseases of Intestines ...	7	...	...	...	...	1	1	...	...	1	2	2	...	...
Peritonitis	18	1	...	3	1	...	1	1	1	2	5	2	1	...
Cirrhosis of Liver	25	...	...	1	...	...	...	1	4	4	5	9	1	...
Liver	6	...	...	...	...	...	...	1	2	...	2	...	...	...
Biliary Calculi ..	12	...	...	...	...	...	...	...	2	1	4	4	1	...
Digestive System (Other Dis:)	43	1	2	3	...	...	1	2	2	5	8	12	6	...
7. DIS: OF LYMPHATIC AND DUCTLESS GLANDS.														
Spleen, Disease of.....	2	...	...	...	...	1	...	...	1	...	...	...	...	...
Lymphat: Syst: (Other Dis:)	18	2	...	...	...	...	...	1	3	7	3	2	...	...
Thyroid Body (Other Dis:)	4	...	...	...	...	...	...	...	1	...	1	2	...	...
Addison's Dis: (Dis: of)	4	...	...	...	1	...	...	...	1	...	1	1	...	...
8. DISEASES OF URINARY SYSTEM.														
Nephritis Ac: Uræmia	29	...	...	1	...	2	...	3	1	5	7	6	2	...
Ch: Bright's Dis: Albumin: ...	211	...	...	...	...	3	3	11	15	38	59	58	21	...
Calculus	2	...	...	...	...	...	...	...	1	1	...	...	...	...
Bladder and Prostate Dis: ...	87	...	...	...	...	...	1	...	...	4	17	33	31	...
Urinary Syst: (Other Dis:)	23	...	1	...	...	1	...	2	3	4	4	5	3	...

TABLE A, 1938—concluded

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
		0 to 1	1 to 5											
9. DISEASES OF GENERATIVE SYSTEM.														
Ovarian Tumour	3	...	...	...	...	...	...	1	...	...	1	1	...
Other Dis: of Ovary	2	...	...	...	...	...	1	...	1	...	...	...	...
Uterine Tumour	1	...	...	...	...	...	...	1	...	...	...	...	...
Other Dis: of Uterus and Vagina	5	...	...	...	...	...	...	1	4	...	...	...	...
Disord: of Menstruation .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Gener: and Mam: Orgs: (Other)	4	...	...	...	1	...	...	1	1	1	...	...	...
10. DISEASES OF PREGNANCY AND CHILDBIRTH.														
Abortion, Miscarriage	4	...	...	...	...	...	3	1	...	...	...	...	...
Puerperal Mania .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Convulsions	6	...	...	...	...	...	3	3	...	...	...	...	...
Placenta Præv: Flooding	1	...	...	...	...	...	...	1	...	...	...	...	...
Other Ac: of Preg: & Childbirth	22	...	...	...	1	2	14	5	...	...	...	...	...
11. DISEASES OF LOCOMOTOR SYSTEM.														
Caries, Necrosis .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Arthritis, Periostitis	5	...	...	...	...	...	...	...	...	1	4	...	...
Locomotor Sys: (Other)	10	...	2	2	2	...	...	3	...	...	1	...	...
12. DISEASES OF THE SKIN.														
Carbuncle, Boil	4	...	...	...	...	1	...	1	...	1	...	1	...
Ulcer, Bedsore	1	...	...	...	...	...	...	...	...	1	...	...	...
Eczema	2	1	...	...	...	...	...	...	...	...	...	1	...
Pemphigus .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin Diseases (Other)	11	6	1	...	...	...	...	...	...	1	3	...	...
C.—Other Specified Diseases														
D.—Ill-defined and not Specified Diseases.														
Atrophy, Debility	29	28	...	1	...	...	...	...	...	...	...	...	...
Old Age	582	...	...	...	...	...	...	...	1	6	146	328	101
Dropsy, Ascites, Anasarca .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Tumour	14	...	...	1	2	...	1	...	...	3	6	1	...
Abscess	4	2	...	...	...	...	...	...	1	...	...	1	...
Hæmorrhage .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudden (cause unascertained) .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Ill-defined .....	...	...	...	...	...	...	...	...	...	...	...	...	...
E.—Violent Deaths.														
1. ACCIDENT.														
In Mines and Quarries .....	...	...	...	...	...	...	...	...	...	...	...	...	...
By Vehicles { On Railways	6	...	1	...	...	1	...	1	2	1	...	...	...
{ In Streets	95	...	5	7	6	6	3	11	8	13	8	21	7	
Ships, Boats, Docks (not Drowning)	1	...	...	1	...	...	...	...	...	...	...	...	...
Building Operations .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Machinery	2	...	...	...	...	...	...	...	1	1	...	...	...
Weapons and Implements .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Burns and Scalds	24	1	5	1	4	...	1	2	2	4	4	...	...
Poison, Poisonous Vapours	9	...	...	...	...	...	3	...	4	1	1	...	...
Drowning	20	...	3	...	1	2	1	...	3	6	2	1	1	
Suffocation	4	4	...	...	...	...	...	...	...	...	...	...	...
Falls	79	...	1	2	...	2	1	4	5	6	9	13	34	
Weather Agencies .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Otherwise or not Stated	7	...	...	...	1	1	...	3	1	...	...	1	...
2. HOMICIDE.														
5	1	...	...	1	...	...	...	1	...	1	...	1	...
3. SUICIDE.														
88	...	...	...	...	2	3	15	14	12	27	10	5	...
4. EXECUTION.														
...	

TABLE C.—MANCHESTER, 1938.
Causes of Deaths at Different Life Periods—FEMALES.

Classes	CAUSES OF DEATH	All Ages Total	AGES AT DEATH—IN YEARS												
			UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
			0 to 1	1 to 5											
	All Causes	4439	344	107	62	25	75	91	210	261	374	770	1051	861	208
A	Smallpox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles.....	26	6	19	1	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever	3	...	3	...	...	...	...	...	...	...	...	...	...	...
	Typhus Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough	7	2	4	...	1	...	...	...	...	...	...	...	...	...
	Diphtheria	21	...	5	12	1	2	1	...	...	...	...	...	...	...
	Ill-defined Fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Enteric Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Influenza	43	1	...	2	...	...	...	1	2	1	8	6	20	2
	Epidemic Diarrhoea .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea, Dysentery, Simple Cholera.....	38	38	...	...	...	...	...	...	...	...	...	...	...	...
	Veneral Affections.....	2	1	...	...	...	...	...	...	...	1	...	...	...	...
	Erysipelas.....	2	...	...	...	...	...	...	...	...	1	...	...	1	...
	Pyæmia, Septicæmia (Others) ...	3	...	...	1	...	...	...	...	1	...	1	...	...	...
	Puerperal Fever	16	...	...	...	...	1	1	11	3	...	...	...	...	...
	Other Zymotics	19	5	2	2	...	2	3	2	...	...	1	...	2	...
	Tubercular Periton : Tabes Mes.	8	...	1	...	1	2	1	2	...	...	1	...	...	...
	Tubercular Meningitis	23	1	3	4	4	1	3	3	3	1	...	...	...	...
	Phthisis.....	254	...	1	2	5	32	57	76	36	26	13	5	1	...
	Tuberculous Diseases (Other) ...	20	1	1	2	1	2	1	3	2	2	3	2	...	...
Parasitic Diseases .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism	3	...	...	...	...	...	...	...	...	...	1	2	...	...
Rheumatic Fever	22	...	...	1	2	2	3	3	3	1	2	3	2	...	
Cancer	676	...	...	1	...	2	...	11	53	121	196	195	82	15	
Premature Birth	84	84	...	...	...	...	...	...	...	...	...	...	...	...
Congenital defects	50	48	2	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	8	8	...	...	...	...	...	...	...	...	...	...	...	...
B and C	Epilepsy	16	...	...	1	...	1	...	3	3	4	2	1	1	...
	Convulsions	17	16	1	...	...	...	...	...	...	...	...	...	...	...
	Nervous System (Other).....	78	5	3	4	1	1	1	11	9	14	13	11	5	...
	Cerebral Hæmorrhage, Apoplexy, and Hemiplegia	178	...	...	...	...	...	...	1	6	11	44	74	37	5
	Heart and Blood Vessel Diseases	1310	3	2	1	1	7	2	18	42	84	268	440	359	83
	Pleurisy.....	5	...	...	...	...	...	1	1	...	...	2	...	1	...
	Bronchitis	142	5	1	...	...	1	...	3	3	4	20	40	52	13
	Pneumonia { Lobar-Croupous	93	9	10	2	...	...	...	4	10	13	17	15	13	...
	{ Broncho-Lobular	124	49	27	4	1	2	2	1	4	3	5	17	6	3
	"Pneumonia".....	11	2	1	...	1	...	...	...	1	2	4	...	...	...
	Respiratory Diseases (Other) ...	31	2	...	...	...	1	...	1	1	5	7	7	5	2
	Cirrhosis	9	...	...	...	...	...	...	...	3	1	2	3	...	...
	Digestive System (Other).....	145	3	8	6	...	3	4	8	15	14	31	33	17	3
	Urinary System (Other)	144	...	1	1	...	2	2	9	13	25	39	34	17	1
	Generative Organs and Childbirth	48	...	...	...	...	2	2	21	14	6	1	1	1	...
Other specified Diseases	292	44	8	7	2	6	5	9	18	19	63	78	31	2	
D	Marasmus and Atrophy.....	8	7	...	1	...	...	...	...	...	...	...	...	...
	Old Age	333	...	...	...	...	...	...	...	1	4	66	184	78	
	Other Ill-defined Causes	3	1	...	...	...	...	...	...	1	...	...	1	...	
E	Violence	88	2	4	7	3	3	1	1	8	9	13	14	22	1
	Homicide.....	4	1	...	...	1	...	...	...	1	...	...	...	1	...
	Suicide	32	...	...	...	...	...	1	7	7	4	9	4	...	...

TABLE D
Manchester, 1938—Causes of Death in Infancy and Childhood.

CAUSES OF DEATH	UNDER ONE YEAR			Total under One Year	ONE AND UNDER FIVE YEARS				Total under Five Years
	Under 3 months	3-6 months	6-12 months		1-	2-	3-	4-	
All Causes	482	143	134	759	107	54	39	34	993
Chicken Pox.....	...	...	1	1	1	...	...	...	2
Measles .....	...	1	12	13	23	7	5	4	52
Scarlatina .....	...	...	...	...	1	2	...	5	8
Whooping Cough	1	1	2	4	3	2	1	1	11
Diphtheria.....	...	...	2	2	...	4	6	6	18
Erysipelas .....	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases	44	29	13	86	1	...	...	...	87
Gastritis.....	...	...	...	...	...	...	...	...	...
Syphilis	2	2	...	4	...	...	...	...	4
Tabes Mesenterica and Tuberc. Peritonitis	...	...	...	...	1	1	1	...	3
Tubercular Meningitis .....	...	...	5	5	5	3	2	...	15
Tuberculosis (Other) .....	...	1	3	4	4	...	1	2	11
Rickets	2	...	...	2	2	...	...	...	4
Premature Birth	164	28	...	192	...	...	...	...	192
Injury at Birth	29	...	...	29	...	...	...	...	29
Atelectasis.....	24	1	...	25	...	...	..	...	25
Congenital Malformations	74	7	6	87	4	...	...	...	91
Convulsions	21	7	6	34	4	...	...	...	38
Meningitis.....	1	2	2	5	3	...	1	...	9
Nervous Diseases (Other)...	3	1	2	6	...	...	1	...	7
Bronchitis	4	6	3	13	1	1	...	1	16
Pneumonia	38	35	48	121	41	18	8	5	193
Other Respiratory Diseases	3	...	...	3	...	...	...	...	3
Atrophy, Marasmus	14	12	2	28	...	...	...	...	28
Found Dead in Bed (over- laid)	3	1	...	4	...	...	...	...	4
Suffocation .....	...	...	...	...	...	...	...	...	...
Violence (Other forms).....	1	...	1	2	4	2	4	5	17
Ill-defined Causes.....	2	...	...	2	...	...	...	...	2
Unclassified	52	9	26	87	9	14	9	5	124

Specified Causes, and (c) Infantile Mortalities; also the Percentages to Total Deaths of Inquest Cases and of Deaths in Public Institutions; also Quinquennial Averages 1871-1935.

Year	Estimated Population (Mean)	Marriage Rate per 1,000 persons living	Annual Rates per 1,000 persons living													Percentage to Total Deaths			Year
			Births	Deaths (all causes)	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Typhus Fever	Enteric Fever	Simple Continued Fever	Diarrhoeal Diseases	Violence	Inquest Cases	Deaths in Public Institutions	Infantile Mortality		
1871-1875	477,344	24.6	38.9	28.3	0.26	0.64	1.08	0.08	0.78	0.14	0.43	0.21	1.95	0.94	7.2	13.4	198	.. 1871-1875	
1876-1880	509,802	18.6	38.7	26.2	0.24	0.53	1.07	0.13	0.84	0.08	0.29	0.11	1.26	0.89	7.5	14.3	172	.. 1876-1880	
1881-1885	542,746	17.9	35.1	23.6	0.04	0.71	0.48	0.10	0.68	0.05	0.20	0.03	0.99	0.72	7.0	15.9	175	.. 1881-1885	
1886-1890	575,630	16.6	33.4	24.6	0.02	0.83	0.50	0.32	0.54	0.02	0.30	0.01	1.08	0.78	6.9	17.7	183	.. 1886-1890	
1891-1895	517,801	16.9	33.2	23.6	0.03	0.62	0.26	0.27	0.64	0.00	0.24	0.01	1.19	0.77	7.1	19.2	186	.. 1891-1895	
1896-1900	539,599	18.2	32.5	22.7	..	0.89	0.20	0.13	0.53	0.00	0.18	0.01	1.69	0.73	7.1	20.2	192	.. 1896-1900	
1901-1905	554,355	17.4	30.9	20.1	0.01	0.55	0.19	0.22	0.41	0.00	0.13	0.00	1.15	0.72	7.1	24.4	173	.. 1901-1905	
1906-1910	660,049	17.0	28.1	17.7	..	0.54	0.16	0.17	0.37	0.00	0.10	0.00	0.76	0.68	7.4	27.3	147	.. 1906-1910	
1911-1915	731,677	17.6	24.8	16.4	..	0.50	0.12	0.14	0.25	..	0.05	..	0.84	0.67	7.9	30.8	133	.. 1911-1915	
1916-1920	770,330	16.7	19.2	14.1	..	0.24	0.04	0.08	0.21	..	0.02	0.00	0.30	0.49	6.4	32.3	105	.. 1916-1920	
1921-1925	751,288	16.8	20.6	13.9	..	0.25	0.06	0.10	0.20	..	0.01	..	0.33	0.44	5.7	37.8	95	.. 1921-1925	
1926-1930	759,570	17.3	17.4	13.8	..	0.18	0.02	0.11	0.14	..	0.01	..	0.24	0.46	4.8	42.9	88	.. 1926-1930	
1931-1935	771,182	16.8	15.0	13.1	..	0.11	0.02	0.10	0.08	..	0.00	..	0.15	0.46	5.0	48.5	77	.. 1931-1935	
1934	773,593	17.9	14.8	12.2	..	0.13	0.02	0.11	0.05	..	0.00	..	0.17	0.42	4.9	49.1	69	.. 1934	
1935	776,028	17.2	14.5	12.9	..	0.13	0.02	0.07	0.06	..	0.00	..	0.11	0.42	4.6	51.2	71	.. 1935	
*1936	759,058	17.7	14.7	13.5	..	0.16	0.01	0.12	0.06	..	0.00	..	0.09	0.46	4.7	52.2	77	.. 1936	
1937	751,371	19.1	14.3	13.5	..	0.06	0.01	0.12	0.07	..	0.00	..	0.11	0.44	4.3	53.9	76	.. 1937	
1938	747,318	17.9	14.8	12.4	..	0.07	0.01	0.07	0.02	..	0.00	..	0.12	0.45	4.9	53.8	69	.. 1938	

Quinquennial Average

The populations and rates prior to 1891 are those for the Unions of Manchester, Chorlton, and Prestwich, which have been taken as approximately representing "Manchester." The City was extended to include Moss Side and Withington in November, 1904, Gorton and Levenshulme in November, 1909, and Wythenshawe, April, 1931.

*The population for calculating the death rates for 1936 = 771,018, as the facts for this year are for 53 weeks.

TABLE F.
MANCHESTER—Annual Rates of Mortality from certain causes of Death.

YEAR	ANNUAL RATES PER 1,000 PERSONS LIVING											RATES PER 1,000 BIRTHS	
	Cancer	Tuberc. Peritonitis Tabes Mes.	Phthisis	Other Tuberc. Diseases	Diseases of Nervous System	Diseases of Heart and Blood Vessels	Diseases of Respiratory System	Diseases of Digestive System	Diseases of Urinary System	Diseases of Generative System	Puerperal Fever	Childbirth	
1881-1885 ..	0.50	0.35	2.42	0.57	3.28	1.37	5.41	1.23	0.48	0.08	3.03	1.99	
1886-1890 ..	0.64	0.36	2.24	0.59	3.09	1.73	5.76	1.23	0.61	0.08	3.22	2.13	
1891-1895 ..	0.62	0.22	2.09	0.75	1.74	2.53	5.56	1.07	0.52	0.07	2.75	3.42	
1896-1900 ..	0.73	0.19	2.04	0.63	1.32	2.54	5.03	1.04	0.49	0.09	1.55	1.51	
1901-1905 ..	0.80	0.16	1.94	0.55	1.17	2.56	4.29	0.95	0.49	0.08	1.21	1.76	
1906-1910 ..	0.88	0.14	1.65	0.45	0.95	2.56	3.75	0.84	0.54	0.07	1.28	1.49	
1911-1915 ..	1.01	0.12	1.59	0.38	0.79	2.34	3.45	0.68	0.56	0.09	1.24	2.14	
1916-1920 ..	1.08	0.09	1.39	0.28	0.54	2.27	2.98	0.51	0.47	0.06	1.58	1.82	
1921-1925 ..	1.34	0.06	1.26	0.24	0.51	2.58	3.03	0.47	0.46	0.07	1.54	2.04	
1926-1930 ..	1.45	0.03	1.16	0.19	0.48	3.05	2.66	0.45	0.50	0.07	1.74	2.80	
1931-1935 ..	1.61	0.02	1.00	0.13	0.41	3.68	1.95	0.46	0.48	0.05	*1.47	*2.40	
1934.. ..	1.60	0.02	0.97	0.14	0.37	3.77	1.47	0.45	0.47	0.06	1.25	3.00	
1935.. ..	1.68	0.02	0.92	0.10	0.41	3.62	1.73	0.48	0.44	0.04	2.03	1.61	
1936.. ..	1.62	0.02	0.87	0.12	0.39	4.10	1.83	0.50	0.49	0.07	1.69	3.29	
1937.. ..	1.66	0.01	0.88	0.15	0.36	4.12	1.69	0.53	0.48	0.07	1.34	2.85	
1938.. ..	1.72	0.01	0.83	0.13	0.35	3.98	1.32	0.49	0.47	0.05	1.39	2.86	

See footnotes to Table E

* From the Year 1931 the Maternal Mortality rates are calculated on per 1,000 births (Live and Stillbirths).

TABLE G, 1938—Population, Area, Density.
Total Births and Deaths, with Birth and Death Rates.
[Institution Populations, Births and Deaths, distributed.]

WARDS	Estimated Population	Area in Acres	Persons to an Acre	BIRTHS		DEATHS		Natural Rate of Increase
				Total	Rate per 1,000	Total	Rate per 1,000	
City	747,318	27,255	27	11,025	14.75	9,231	12.35	+ 2.40
All Saints	20,799	300	69	312	15.00	273	13.13	+ 1.87
Ardwick	22,192	426	52	422	19.02	327	14.74	+ 4.28
Beswick	25,948	254	102	408	15.72	311	11.99	+ 3.73
Blackley	22,470	1,158	19	294	13.08	259	11.53	+ 1.55
Bradford	27,940	790	35	416	14.89	349	12.49	+ 2.40
Cheetham	23,350	555	42	267	11.43	265	11.35	+ 0.08
Chorlton-cum-Hardy ...	45,503	1,666	27	352	7.74	439	9.65	- 1.91
Collegiate Church	14,766	446	33	232	15.71	216	14.63	+ 1.08
Collyhurst	16,097	232	69	265	16.46	184	11.43	+ 5.03
Crumpsall	16,173	2,203	7	364	22.51	236	14.59	+ 7.92
Didsbury	26,838	2,354	11	331	12.34	305	11.36	+ 0.98
Exchange	289	61	5	1	3.46	3	10.38	- 6.92
Gorton North	20,372	604	34	305	14.97	240	11.78	+ 3.19
Gorton South ...	30,363	628	48	383	12.61	334	11.00	+ 1.61
Harpurhey	19,788	344	58	345	17.44	244	12.33	+ 5.11
Levenshulme	19,078	606	31	218	11.43	247	12.95	- 1.52
Longsight	22,722	593	38	279	12.28	319	14.04	- 1.76
Medlock Street	21,915	212	103	376	17.16	289	13.19	+ 3.97
Miles Platting.....	20,422	313	65	342	16.75	241	11.80	+ 4.95
Moston	25,155	1,231	20	385	15.31	302	12.01	+ 3.30
Moss Side East ...	18,400	241	76	293	15.92	253	13.75	+ 2.17
Moss Side West	18,818	267	70	260	13.82	283	15.04	- 1.22
New Cross	22,442	303	74	447	19.92	402	17.91	+ 2.01
Newton Heath	21,526	1,005	21	286	13.29	291	13.52	- 0.23
Openshaw	21,292	482	44	335	15.73	262	12.31	+ 3.42
Oxford.....	621	167	4	6	9.66	20	32.21	- 22.55
Rusholme	21,662	806	27	202	9.33	239	11.03	- 1.70
St. Ann's	218	55	4	3	13.76	...	...	+ 13.76
St. Clement's	5,139	181	28	23	4.48	16	3.11	+ 1.37
St. George's	24,028	266	90	439	18.27	318	13.23	+ 5.04
St John's.....	4,246	199	21	59	13.90	69	16.25	- 2.35
St. Luke's	25,280	316	80	408	16.14	416	16.46	- 0.32
St. Mark's	20,869	340	61	354	16.96	260	12.46	+ 4.50
St. Michael's ..	17,221	243	71	313	18.18	232	13.47	+ 4.71
Withington	48,864	1,841	27	513	10.50	457	9.35	+ 1.15
Wythenshawe.....	34,512	5,567	6	787	22.80	330	9.56	+ 13.24

TABLE H, 1938.

Births Registered in the City of Manchester, in Wards, and Distinguishing Legitimate and Illegitimate Births; also the Proportion of Mortality among Infants of both Classes under One Year of Age.

WARDS	BIRTHS			DEATHS UNDER 1 YEAR		PROPORTION OF DEATHS UNDER 1 YEAR PER 1,000 BIRTHS		
	Total	Illegitimate	Percentage of Illegitimate Births to Total Births	Total	Of Illegitimate Children	Total	Legitimate	Illegitimate
City	11,025	557	5.1	759	62	69	67	111
All Saints	312	40	12.8	26	2	83	88	50
Ardwick	422	31	7.3	28	1	66	69	32
Beswick	408	17	4.2	41	3	100	97	179
Blackley	294	7	2.4	16	1	54	52	143
Bradford	416	20	4.8	47	6	113	104	300
Cheetham	267	17	6.4	13	2	49	44	118
Chorlton-cum-Hardy.....	352	20	5.7	19	1	54	54	50
Collegiate Church.....	232	12	5.2	20	3	86	77	250
Collyhurst.....	265	14	5.3	15	2	57	52	143
Crumpsall.....	364	12	3.3	10	3	27	20	250
Didsbury	331	8	2.4	22	3	66	59	375
Exchange	1	...	...	...	...	...	...	...
Gorton North.....	305	4	1.3	16	...	53	53	...
Gorton South.....	383	18	4.7	20	...	52	55	...
Harpurhey.....	315	11	3.2	26	...	75	78	...
Levenshulme	218	16	7.3	11	...	50	54	...
Longsight	279	10	3.6	27	2	97	93	200
Medlock Street.....	376	25	6.6	29	1	77	80	40
Miles Platting	342	14	4.1	26	...	76	79	...
Moston	385	7	1.8	21	1	55	53	143
Moss Side East.....	293	41	13.9	20	3	68	67	73
Moss Side West	260	25	9.6	23	4	88	81	160
New Cross	447	40	8.9	33	7	74	64	175
Newton Heath.....	286	10	3.5	11	...	38	40	...
Openshaw.....	335	10	3.0	27	1	81	80	100
Oxford	6	...	...	...	...	...	...	...
Rusholme	202	16	7.9	11	3	54	43	188
St. Ann's.....	3	...	...	...	...	...	...	...
St. Clement's.....	23	1	4.3	2	...	87	91	...
St. George's.....	439	16	3.6	37	1	84	85	63
St. John's.....	59	1	1.7	8	...	136	138	...
St. Luke's.....	408	47	11.5	32	3	78	80	64
St. Mark's	354	10	2.8	28	4	79	70	400
St. Michael's.....	313	13	4.2	23	1	73	73	77
Withington	513	15	2.9	26	4	51	44	27
Wythenshawe	787	9	1.1	45	...	57	58	...

TABLE I, 1938.

MANCHESTER—Certification of the Causes of Death in the City
and in the various Wards.

WARDS	Total Deaths	Certified by		Not Certified	Proportion per cent. of Deaths		
		Registered Medical Practitioners	Inquest		Certified by		Not Certified
					Regist'd Medical Practitioners	Inquest	
City	9,231	8,662	453	116	93·8	4·9	1·3
All Saints	273	248	24	1	90·8	8·8	0·4
Ardwick	327	302	20	5	92·3	6·1	1·6
Beswick	311	298	11	2	95·8	3·6	0·6
Blackley	259	242	14	3	93·4	5·4	1·2
Bradford	349	321	22	6	92·0	6·3	1·7
Cheetham	265	255	8	2	96·1	3·2	0·7
Chorlton-cum-Hardy	439	407	25	7	92·6	5·7	1·7
Collegiate Church	216	204	8	4	94·4	3·7	1·9
Collyhurst	184	176	8	...	95·6	4·4	...
Crumpsall ..	236	223	12	1	94·5	5·0	0·5
Didsbury.....	305	290	14	1	95·1	4·6	0·3
Exchange	3	3	...	...	100·0	...	...
Gorton North.....	240	226	12	2	94·2	5·0	0·8
Gorton South	334	320	10	4	95·8	3·0	1·2
Harpurhey	244	231	8	5	94·7	3·3	2·0
Levenshulme	247	231	7	9	93·5	2·8	3·7
Longsight	319	294	20	5	92·1	6·3	1·6
Medlock Street	289	267	17	5	92·4	5·9	1·7
Miles Platting.....	241	231	10	...	95·9	4·1	...
Moston	302	283	14	5	93·7	4·6	1·7
Moss Side East	253	240	10	3	94·9	3·9	1·2
Moss Side West.....	283	270	9	4	95·4	3·2	1·4
New Cross	402	377	17	8	93·8	4·2	2·0
Newton Heath	291	275	16	...	94·5	5·5	...
Openshaw	262	252	8	2	96·2	3·0	0·8
Oxford	20	18	1	1	90·0	5·0	5·0
Rusholme	239	218	16	5	91·2	6·7	2·1
St. Ann's.....	...	...	...	...	...	...	...
St. Clement's	16	12	1	3	75·0	6·3	18·7
St. George's	318	299	15	4	94·0	4·7	1·3
St. John's	69	60	7	2	87·0	10·1	2·9
St. Luke's	416	397	15	4	95·4	3·6	1·0
St. Mark's	260	243	14	3	93·5	5·4	1·1
St. Michael's ..	232	215	13	4	92·7	5·6	1·7
Withington	457	422	32	3	92·3	7·0	0·7
Wythenshawe	330	312	15	3	94·5	4·6	0·9

NOTIFIABLE INFECTIOUS DISEASES OTHER THAN WHOOPING COUGH AND TUBERCULOSIS.

The diseases included in the Public Health Act, 1936, or regulations under the Public Health Acts, are as follows :—Smallpox, Scarlet Fever, Diphtheria, Membranous Croup, Typhus Fever, Enteric or Typhoid Fever, Relapsing Fever, Puerperal Pyrexia, Erysipelas, Ophthalmia Neonatorum, Cerebro-Spinal Fever, Poliomyelitis, Polio-Encephalitis and Encephalitis-Lethargica, Malaria, Dysentery, Acute Primary Pneumonia, Acute Influenzal Pneumonia, Measles, Rubella and Pemphigus Neonatorum. The following cases were notified in 1938 and the numbers are compared with the average of the previous ten years :—

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Mean	1938
Smallpox	68	8	2	..	..	..	..	..	..	..	8	..
Scarlet Fever	2,100	2,318	3,701	2,913	2,283	1,773	2,080	2,795	2,402	2,578	2,494	2,396
Diphtheria	1,033	761	838	573	885	732	866	903	1,202	1,397	919	1,193
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	32	41	33	24	39	14	14	20	15	7	24	6
Relapsing Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	133	144	156	139	96	128	107	132	106	71	121	*223
Puerperal Pyrexia	66	80	88	80	76	77	119	122	136	123	97	
Erysipelas	428	441	501	399	334	377	363	408	370	341	396	404
Ophthalmia Neonatorum	192	137	144	119	108	107	122	140	122	116	131	132
Cerebro-Spinal Fever	9	17	22	38	27	45	40	49	62	50	36	43
Poliomyelitis	8	4	3	4	5	8	14	7	29	1	8	9
Polio-Encephalitis	2	2	..	..	..	3	2	1	2	1	1	1
Encephalitis-Lethargica	50	37	23	24	9	3	6	4	..	5	16	4
Malaria	15	14	1	1	1	..	..	2	2	..	4	..
Dysentery	13	4	17	6	2	..	3	7	1	6	6	46
Primary Pneumonia	2,176	2,265	2,059	2,005	2,047	1,734	1,496	2,105	1,973	1,969	1,983	1,543
Influenzal Pneumonia	363	875	290	480	321	793	178	375	240	458	437	103
Measles	7,141	9,512	10,738	7,771	12,238	6,350	11,383	9,907	8,807	6,550	9,040	9,949
Rubella	1,498	499	237	2,553	1,687	334	342	1,180	866	824	1,002	375
Pemphigus Neonatorum	106	87	112	64	46	41	33	25	36	43	59	48
	15,433	17,246	18,965	17,193	20,204	12,519	17,168	18,173	16,371	14,540	16,782	16,475

In 1900 Erysipelas was made notifiable, in 1910 Ophthalmia Neonatorum, in 1912 Cerebro-Spinal Fever and Poliomyelitis, Measles and Rubella were made notifiable in 1916, and Polio-Encephalitis, Encephalitis-Lethargica, Malaria, Dysentery, Primary Pneumonia, Influenzal Pneumonia in 1919, in 1925 (September) Pemphigus Neonatorum

Puerperal Pyrexia was made notifiable on October 1st, 1926.

* The Public Health Act 1936 provides that Puerperal Pyrexia includes the obligation to notify conditions at present notifiable as Puerperal Fever as from October 1st, 1937.

The Puerperal Pyrexia Regulations 1939 replace the term "Puerperal Fever" by the term Puerperal Pyrexia as from the 1st April, 1939.

The deaths from the more common diseases are shown in the following figures :—

Years	Measles	Scarlet Fever	Diphtheria	Enteric Fever	Influenza	Whooping Cough	Diarrhoea	Phthisis
1928-37 average	93	13	76	4	281	74	125	787
1938	57	9	54	..	85	14	87	620

Consultations.—Seventy-five consultation visits were made during the year by Medical Officers of the Department at the request of medical practitioners in the City in connection with the diagnosis of cases of infectious disease in which the nature of the illness was in doubt.

SMALLPOX.

No cases of smallpox occurred in the City in 1938.

SCARLET FEVER.

There were 2,396 known cases of scarlet fever in 1938.

The case fatality rate was 0.38 per cent. and the type of disease continued to be mild compared with that which was prevalent in former years.

Seventy-five per cent. of the patients were removed to hospital, and a review of these cases is contained in a statement of the Medical Superintendent of Monsall Hospital on page 175 *et seq.* of this report.

The following figures show the course of the disease in Quarters :—

TABLE 1.

Scarlet Fever—Attacks in Quarters according to Date of Rash.

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
1933 ..	417	454	304	598	1773
1934 ..	395	352	502	831	2080
1935 ..	743	590	607	855	2795
1936 ..	382	649	481	890	2402
1937 ..	520	560	607	891	2578
5 years Mean	491	521	500	813	2325
1938 ..	816	608	452	520	2396

TABLE 2.

1938—Scarlet Fever Attacks in Wards, with Attack Rate, Case Fatality per cent., and Removals to Hospital per cent.

WARDS	ATTACKS	ATTACK RATE PER 1,000 LIVING	† CASE FATALITY PER CENT.	REMOVALS TO HOSPITAL PER CENT.
City	2,396	3.21	0.38	74.96
All Saints	59	2.84	—	84.75
Ardwick	73	3.29	—	82.20
Beswick	60	2.31	—	80.00
Blackley	134	5.96	—	70.15
Bradford	77	2.76	—	75.32
Cheetham	51	2.18	—	72.55
Chorlton-cum-Hardy ..	133	2.92	—	66.92
Collegiate Church ..	29	1.96	—	86.21
Collyhurst	21	1.31	—	80.95
Crumpsall	52	3.22	—	63.46
Didsbury	97	3.61	—	73.20
Exchange	2	6.92	—	100.00
Gorton North	67	3.29	—	74.63
Gorton South	76	2.50	—	72.37
Harpurhey	71	3.59	—	78.87
Levenshulme	76	3.98	—	71.05
Longsight	59	2.60	1.70	64.41
Medlock Street	81	3.70	—	85.19
Miles Platting	48	2.35	2.08	79.17
Moston	80	3.18	—	65.00
Moss Side East	61	3.32	—	80.33
Moss Side West	57	3.03	—	84.21
New Cross	46	2.05	—	91.30
Newton Heath	108	5.02	—	77.78
Openshaw	73	3.43	—	82.20
Oxford	2	3.22	—	100.00
Rusholme	62	2.86	3.23	70.97
St. Ann's	1	4.59	—	100.00
St. Clement's	2	0.39	—	100.00
St. George's	106	4.41	—	82.08
St. John's	7	1.65	—	100.00
St. Luke's	49	1.94	—	83.67
St. Mark's	87	4.17	—	78.16
St. Michael's	9	0.52	—	77.78
Withington	179	3.66	1.12	66.48
Wythenshawe	201	5.82	1.49	69.15

† Corrected; the fatal cases are those actually occurring amongst the cases notified.

TABLE 3.

Scarlet Fever—Number of Attacks and of Deaths ; also the Case Fatality per cent. at different Ages for the Forty-seven Years, 1891—1937 and for 1938.

Ages	1891-1937			1938		
	Attacks	Deaths	Case Fatality per cent.	Attacks	Deaths	Case Fatality per cent.
Under 1 year ..	885	131	14.80	15	1	6.67
1 to 2 years ..	2,793	317	11.35	68	1	1.47
2 to 3 „ ..	6,451	510	7.91	147	2	1.36
3 to 4 „ ..	9,089	554	6.10	190	1	.53
4 to 5 „ ..	10,709	480	4.48	200	2	1.00
5 to 6 „ ..	12,231	307	2.51	312	2	.64
6 to 7 „ ..	11,101	211	1.90	238	—	—
7 to 8 „ ..	9,849	143	1.45	202	—	—
8 to 9 „ ..	8,203	98	1.19	138	—	—
9 to 10 „ ..	6,864	84	1.22	131	—	—
10 to 15 „ ..	20,284	182	.90	447	—	—
15 to 20 „ ..	6,242	75	1.20	132	—	—
20 to 25 „ ..	3,058	43	1.41	55	—	—
25 to 35 „ ..	3,012	54	1.79	73	—	—
35 to 45 „ ..	985	21	2.13	29	—	—
45 and over ..	291	8	2.75	19	—	—
All ages... ..	112,047	3,218	2.87	2,396	9	.38

TABLE 4.

Scarlet Fever Mortality, 1938.—Rate per 1,000 Living compared with Mean of Five Years.

	1933	1934	1935	1936	1937	Mean	1938
England and Wales	0·02	0·02	0·01	0·01	0·01	0·01	0·01
126 Great Towns ..	0·02	0·02	0·01	0·01	0·01	0·01	0·01
London	0·02	0·02	0·01	0·01	0·01	0·01	0·01
Manchester City ..	0·02	0·02	0·02	0·01	0·02	0·02	0·01
148 Smaller Towns ..	0·02	0·02	0·01	0·01	0·01	0·01	0·01

Scarlet Fever, 1938.—Attacks in Weeks, according to Date of Rash.

FIRST QUARTER		SECOND QUARTER		THIRD QUARTER		FOURTH QUARTER	
Week of Year	1938	Week of Year	1938	Week of Year	1938	Week of Year	1938
1	82	14	66	27	47	40	32
2	53	15	60	28	46	41	33
3	60	16	56	29	43	42	50
4	61	17	46	30	39	43	49
5	80	18	71	31	30	44	35
6	69	19	50	32	25	45	43
7	58	20	38	33	20	46	41
8	83	21	44	34	36	47	39
9	51	22	39	35	33	48	40
10	66	23	25	36	29	49	33
11	66	24	38	37	40	50	48
12	50	25	43	38	27	51	42
13	55	26	27	39	34	52	25
Total ..	834	Total ..	603	Total ..	449	Total ..	510

City total, 1938—2,396.

Scarlet Fever "Return" Cases, 1938.

Out of 2,050 discharges from Monsall Hospital, 79 gave rise to at least 91 "return" cases, a "return" case rate per cent. of 4·4. In addition, 5 others contracted the disease indirectly from a returned patient.

Table showing the interval between return home of hospital patients and onset of illness in "return" cases.

Days	0-6	7-13	14-20	21-27
No. of Cases	36	30	15	10

DIPHTHERIA.

The following figures show the number of cases notified and accepted as diphtheria each year for the last ten years :—

1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
761	838	573	885	732	866	903	1,202	1,397	1,193

Mortality.

The case fatality rate in 1938 was 4·19 per cent. compared with an average of 8·38 in the previous five years. The death rate per 1,000 of the population in Manchester was 0·07 compared with 0·07 in the country as a whole.

There has been a striking reduction in the case fatality rate in recent years. Reference to the following table shows that although the rate continues to be highest in children under 5 years, it is in this group that the greatest percentage reduction has been attained. .

TABLE 1.
Diphtheria.—Manchester Case Fatality Rates per cent.
in Age Groups.

	0-5 years	5-10 years	10-15 years	15 years and over
1901-10	33·5	17·8	6·0	4·5
1929-38	12·7	8·4	3·7	3·1
Percentage Reduction ..	62·1	52·8	38·3	31·1

The mortality from diphtheria, apart from artificial active immunisation, can be combated only by prompt and intensive treatment with antitoxin. The difficulty in this regard becomes evident when it is known that in the fatal cases which occurred in 1938 only 6 per cent. received treatment by antitoxin within two days of the onset of the illness. Such delay is disastrous. It is due in part to the hesitancy of the parent in seeking medical advice and in part to the difficulties of early diagnosis which confront the medical attendant.

“Carriers” and the Virulence Test.

A diphtheria “carrier” is a person who, although apparently in good health, yet harbours in the throat or nose organisms indistinguishable from those of diphtheria. Not all diphtheria-like organisms are capable of provoking disease, and a virulence test is made to determine which are capable of so doing and which are not.

The value of the test is that, in cases where the result is negative, isolation of the individual is unnecessary, and much inconvenience and expense to the family is avoided.

Of the total number of formal notifications received it was found on investigation that 126 related to persons who were merely “carriers” of diphtheria-like organisms. In addition, a further 58 “carriers” were discovered who were not notified as suffering from diphtheria.

In many instances it is not possible to isolate the diphtheria bacilli in pure culture, and in such cases a virulence test cannot be carried out.

The following table relates to 139 “carriers” in which a virulence test was made and is of interest in showing the types of “carriers” and the number who were capable of spreading infection.

In the figures here presented clinical cases of diphtheria are excluded, but cases of children with non-membranous rhinitis unaccompanied by constitutional symptoms are included.

Diphtheria “Carriers” and Virulence Tests, 1938.

Type	No. of “Carriers”	No. Virulent	No. Non-virulent	Per cent. Virulent
Nose	75	56	19	74·7
Throat	40	35	5	87·5
Nose and Throat	24	17	7	70·8
Total	139	108	31	77·7

Swabs.

A total of 3,069 swabs were submitted to the Public Health Laboratory upon request by medical practitioners during the year and, of these, 206 or 6·7 per cent. proved positive. So far as was practicable swabs were taken from the throats and noses of all members under 14 years of age of each family where there had occurred a case of diphtheria.

Supply of Antitoxin.

Diphtheria antitoxin, in phials containing 8,000 units, is supplied free of charge to all medical practitioners for the treatment of persons residing temporarily or permanently in the City, and it may be obtained from the Public Health Office during office hours or at any time from the following fire stations:—Ash Street, Harpurhey; New Street, Miles Platting; Pollard Street, Ancoats; Upton Street, Chorlton-upon-Medlock. It may also be obtained at any time from all of the district police stations. The total quantity supplied in this manner in 1938 was 941 phials (7,528,000 units), at a cost of £301 18s. 1d.

TABLE II.

Diphtheria, 1938—Attacks in Weeks, according to date of onset.

FIRST QUARTER		SECOND QUARTER		THIRD QUARTER		FOURTH QUARTER	
Week of Year	1938	Week of Year	1938	Week of Year	1938	Week of Year	1938
1	46	14	29	27	17	40	13
2	23	15	14	28	19	41	21
3	35	16	14	29	17	42	18
4	32	17	16	30	14	43	22
5	36	18	25	31	17	44	17
6	43	19	22	32	11	45	27
7	33	20	15	33	19	46	20
8	42	21	18	34	18	47	22
9	35	22	15	35	11	48	19
10	31	23	13	36	24	49	12
11	42	24	17	37	15	50	31
12	37	25	20	38	14	51	21
13	33	26	27	39	24	52	17
Total ..	468	Total ..	245	Total ..	220	Total ..	260

City Total, 1938—1,193.

The following table shows that the number of attacks is highest in children up to 10 years.

TABLE III.
Diphtheria.—Number of Attacks, of Deaths, and Case Fatality at Different Ages for the Forty-seven Years, 1891–1937, and for 1938.

Ages	1891–1937			1938		
	Attacks	Deaths	*Case Fatality %	Attacks	Deaths	*Case Fatality %
Under 1 year	591	303	51·27	9	2	22·22
1 to 2 years.. .. .	1,477	628	42·52	26	—	—
2 to 3 „	2,189	598	27·32	46	4	8·70
3 to 4 „	2,779	577	20·76	68	4	5·88
4 to 5 „	3,132	555	17·72	108	7	6·48
5 to 6 „	3,332	478	14·35	127	5	3·94
6 to 7 „	2,872	318	11·67	90	3	3·33
7 to 8 „	2,242	229	10·21	94	5	5·32
8 to 9 „	1,841	178	9·67	95	9	9·47
9 to 10 „	1,366	115	8·42	70	5	7·14
10 to 15 „	4,208	185	4·40	224	2	·89
15 to 20 „	1,556	48	3·08	114	3	2·63
20 to 25 „	980	26	2·65	52	1	1·92
25 to 35 „	1,115	26	2·33	47	—	—
35 to 45 „	472	—	—	6	—	—
45 and over	250	25	10·00	17	—	—
All ages	30,402	4,300	14·14	1,193	50	4·19

* The percentages in this column are the actual proportions of fatal cases to the attacks at those ages.

The case mortality rate at all ages since 1919 has been as follows :

1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
—	—	—	—	—	—	—	—	—	—
9·1	7·3	8·7	9·8	9·5	9·3	8·8	8·6	8·3	8·1
1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
—	—	—	—	—	—	—	—	—	—
7·8	6·4	10·1	9·3	11·7	9·58	6·64	7·90	6·08	4·19

TABLE IV.

Diphtheria, 1938 — Attacks in Wards, with Attack Rate, Case Fatality per cent., and Removals to Hospital per cent.

Wards	Attacks	Deaths	Attack Rate per 1000 Living	† Case Fatality per cent.	Removals to Hospital per cent.
City	1,193	50	1.60	4.19	96.40
All Saints	59	3	2.84	5.08	98.31
Ardwick	52	1	2.34	1.92	98.08
Beswick	45	1	1.73	2.22	97.78
Blackley	48	2	2.14	4.17	100.00
Bradford	59	2	2.11	3.39	89.83
Cheetham	34	—	1.46	—	100.00
Chorlton-cum-Hardy ..	31	1	0.68	3.23	83.87
Collegiate Church ..	11	—	0.74	—	100.00
Collyhurst	19	1	1.18	5.26	100.00
Crumpsall	13	—	0.80	—	100.00
Didsbury	31	1	1.16	3.23	100.00
Exchange	2	—	6.92	—	100.00
Gorton North	31	1	1.52	3.23	96.77
Gorton South	45	2	1.48	4.44	91.11
Harpurhey	10	—	0.51	—	90.00
Levenshulme	15	1	0.79	6.67	93.33
Longsight	48	3	2.11	6.25	95.83
Medlock Street	64	5	2.92	7.81	98.44
Miles Platting	24	1	1.18	4.17	100.00
Moston	23	1	0.91	4.35	91.30
Moss Side East	40	4	2.17	10.00	95.00
Moss Side West	50	2	2.66	4.00	96.00
New Cross	43	—	1.92	—	97.67
Newton Heath	43	3	2.00	6.98	97.67
Openshaw	43	1	2.02	2.33	97.67
Oxford	—	—	—	—	—
Rusholme	37	—	1.71	—	97.30
St. Ann's	2	—	9.17	—	100.00
St. Clement's	—	—	—	—	—
St. George's	61	5	2.54	8.20	91.80
St. John's	5	—	1.18	—	100.00
St. Luke's	76	3	3.01	3.95	98.68
St. Mark's	37	2	1.77	5.41	97.30
St. Michael's	13	—	0.75	—	100.00
Withington	29	1	0.59	3.45	96.55
Wythenshawe	50	3	1.45	6.00	98.00

† Corrected; the fatal cases are those actually occurring amongst the cases notified.

TABLE V.

Diphtheria Mortality, 1938.—Rate per 1,000 Living compared with Mean of Five Years.

	1933	1934	1935	1936	1937	Mean	1938
England and Wales ..	0·06	0·10	0·08	0·05	0·07	0·07	0·07
126 Great Towns	0·08	0·11	0·09	0·06	0·08	0·08	0·07
London	0·08	0·11	0·06	0·06	0·05	0·07	0·05
MANCHESTER CITY ..	0·11	0·11	0·07	0·12	0·11	0·10	0·07
148 Smaller Towns ..	0·04	0·09	0·07	0·04	0·05	0·06	0·06

Immunisation against Diphtheria.

During 1938, 10,754 persons received a complete course of diphtheria prophylactic injections. 517 others received an incomplete course. The numbers were distributed as follows:—

TABLE A.

Number of Persons dealt with in Manchester in 1938.

	Numbers having received complete course of prophylactic treatment	Numbers having received incomplete course of prophylactic treatment
Schools	7,031	375
Child Welfare Centres	2,469	10
Hospitals	900	117
Public Health Office	281	15
General Practitioners	73	—
Totals	10,754	517

During the first quarter of the year Toxoid-Antitoxin Floccules was substituted for Toxoid-Antitoxin Mixture for the immunisation of all children treated at the schools. The dosage employed was three 1 c.c. injections at weekly intervals.

Alum Precipitated Toxoid in two doses of 0·1 c.c. and 0·4 c.c. with 2—3 weeks interval is used for the majority of children under 8 years who have the treatment carried out at the welfare centres and at the public health centre.

All three prophylatics—T.A.F., T.A.M., and A.P.T. are in use at the hospitals. T.A.F. is supplied free to general medical practitioners in the City.

TABLE B.
**Prophylatics Used in Immunising Pre-School
and School Children.**

Age Group	Number having received a full course of injections	Prophylatic Used		
		T.A.F.	A.P.T.	T.A.M.
Under 5 years ..	4,717	1,240	2,894	583
5-14 years	5,797	5,342	144	311
Totals— Under 15 years..	10,514	6,582	3,038	894

Although Schick testing is not practised as a routine in connection with the greater part of the scheme, 935 primary tests were performed during the year. 562 gave a positive result and 373 were negative. These were carried out largely among hospital patients and staff.

Facilities are given at the public health centre for posterior Schick testing in cases where it is considered advisable. 68 such tests were carried out during the year, with 4 positive and 64 negative results.

The following table illustrates the progress of the immunisation scheme since its inception :—

TABLE C.
Number of Persons, in Age Groups, having had Full Course of Injections.

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Under 1 year ..	..	20	162	248	212	598	595	691	963	822	1,071	915
1 year ..	3	50	269	313	331	813	743	805	1,219	1,328	1,169	1,228
2 years ..	5	54	226	197	254	579	613	788	1,033	863	890	894
3 "	8	44	221	202	206	482	733	668	1,146	782	901	824
4 "	16	33	238	164	210	458	744	664	1,333	801	906	856
5 "	9	36	269	152	208	473	921	997	1,256	702	951	866
6 "	19	30	281	127	186	406	1,015	987	1,309	772	972	878
7 "	20	17	291	105	137	365	1,002	1,076	1,242	751	890	832
8 "	10	20	281	82	131	336	876	1,415	1,150	810	857	711
9 "	4	21	230	65	107	282	852	1,301	1,241	804	678	583
10 "	3	7	63	62	98	231	711	1,376	1,002	923	698	613
11 "	5	10	39	46	62	247	486	1,061	907	703	459	444
12 "	2	7	42	29	36	266	345	630	825	772	419	395
13 "	2	6	21	22	33	119	280	438	820	615	424	396
14 "	2	—	4	15	22	48	76	247	191	96	117	79
15 years and over	—	7	41	39	48	121	67	371	1,201	917	444	240
Total ..	108	362	2,678	1,868	2,281	5,824	10,059	13,515	16,838	12,461	11,846	10,754
												14,040
												30,247
												14,040
												88,584
												14,040
												10,754

Total 1927-1938

88,584

The totals at the end of 1938 indicate only approximately the immune population, since no account is taken of any deaths that may have ensued subsequently.

* ENTERIC FEVER.

Thirteen notifications of enteric fever were received in 1938, seven of which related to cases in which the diagnosis was subsequently amended. One of the six remaining cases, which was discovered by chance, should rather be classed as a carrier than as a clinical case of enteric. Thus five persons contracted the disease, and of these four were infected by *B. typhosus* and one by *B. paratyphosis B.*

The incidence of enteric fever in Manchester during 1938 was lower than has ever before been recorded.

A woman aged 33 years was admitted to the Royal Infirmary with peritonitis, due to a double salpingitis. During the course of the operation, routine examination of the pus showed the presence of organisms of the paratyphoid C. group. At the time, the blood failed to give any Widal reaction, but a month later the reaction was positive in a titre of 1 in 80. There had been no symptoms indicating paratyphoid, and repeated examinations of urine and faeces proved negative.

Sources of Infection.

The cases occurred sporadically. Two of the patients were somehow infected outside the City; one was probably infected by direct contact with a relative, the nature of whose illness had been otherwise diagnosed, and in the other two cases no probable source of infection was discovered. It is worthy of note that in recent years the association of enteric fever with the consumption of shell fish has been uncommon.

Carriers.

Two female "carriers," A.S.F. aged 39 years, and M.C.F. aged 59 years, and one male "carrier," A.C.M. aged 37 years, continue to be kept under observation, and no spread of infection has been traced to them. A.S.F., who has been under observation since 1932, had the gall bladder removed at the beginning of January 1939, without, however, any relief of the carrier state up to the present time.

Examination of Blood Specimens.

90 specimens of blood were submitted to the laboratory by medical practitioners in connection with cases of illness simulating enteric fever and two gave positive Widal reactions. In addition 12 specimens were obtained from members of infected households and examined, one proving positive and the remainder negative.

Table I. shows the attack and death-rates compared with those for England and Wales.

TABLE I.

Incidence of and Death Rate from Enteric Fever in Manchester.

Number of Notified Cases, Deaths, and Death-rates per 1,000, living from Enteric Fever in each of Twenty-six successive Years.

YEAR	1913	1914	1915	1916	1917	1918	1919	1920	1931	1922	1923	1924	1925
No. of cases notified and accepted ...	292	156	174	78	86	68	90	54	74	36	50	103	65
No. of deaths.	47	34	46	22	10	10	19	13	12	4	8	14	8
Death - rate — Manchester	0.06	0.05	0.06	0.03	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01
Death - rate — England and Wales	0.04	0.05	0.04	0.03	0.03	0.03	0.01	0.01	0.02	0.01	0.01	0.01	0.01

YEAR	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
No. of cases notified and accepted ..	30	18	32	41	30	22	39	14	14	20	15	7	6
No. of deaths ..	9	1	4	7	4	4	3	3	—	3	1	—	—
Death-rate — Manchester	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00	—	0.00	0.00	—	—
Death-rate — England and Wales..	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00

* Including typhoid and paratyphoid.

Table II. shows at what ages enteric fever appears to be most prevalent and also at what ages it is most fatal.

TABLE II.
Enteric Fever.—Number of Attacks, of Deaths, and
Case Fatality per cent. at Different Ages for the
Forty-eight Years, 1891—1938.

Ages	1891-1938		
	Attacks	Deaths	Case Fatality Per cent.
Under 1 year	21	9	42·9
1 to 2 years	58	8	13·8
2 ,, 3 ,,	122	17	13·9
3 ,, 4 ,,	175	22	12·6
4 ,, 5 ,,	233	25	10·7
5 ,, 6 ,,	265	28	10·6
6 ,, 7 ,,	266	26	9·8
7 ,, 8 ,,	247	20	8·1
8 ,, 9 ,,	265	22	8·3
9 ,, 10 ,,	261	26	10·0
10 ,, 15 ,,	1,516	163	10·8
15 ,, 20 ,,	1,652	298	18·0
20 ,, 25 ,,	1,601	313	19·6
25 ,, 35 ,,	2,372	541	22·8
35 ,, 45 ,,	1,169	338	29·0
45 and over	815	271	33·3
All ages	11,038	2,127	19·2

TABLE III.

Enteric Fever Attacks in Weeks reported in 1938 according to Date of Onset.

FIRST QUARTER		SECOND QUARTER		THIRD QUARTER		FOURTH QUARTER	
Week of Year	1938	Week of Year	1938	Week of Year	1938	Week of Year	1938
1	—	14	—	27	—	40	1
2	—	15	—	28	—	41	—
3	—	16	—	29	—	42	—
4	—	17	—	30	—	43	—
5	—	18	—	31	—	44	—
6	—	19	—	32	—	45	—
7	—	20	—	33	—	46	—
8	—	21	—	34	—	47	1
9	1	22	—	35	—	48	—
10	—	23	—	36	—	49	—
11	1	24	—	37	—	50	—
12	—	25	—	38	—	51	—
13	—	26	1	39	1	52	—
Total ..	2	Total ..	1	Total ..	1	Total ..	2

City total, 1938 = 6.

TABLE IV.

Enteric Fever Mortality, 1938—Rate per 1,000 Living, compared with Mean of Five Years.

	1933	1934	1935	1936	1937	Mean	1938
England and Wales	0·01	0·00	0·00	0·01	0·01	0·00	0·00
London	0·00	0·00	0·00	0·01	0·00	0·00	0·00
CITY OF MANCHESTER	0·00	0·00	0·00	0·00	0·00	0·00	0·00

UNDULANT FEVER.

Two cases of undulant fever came to our notice in 1938.

F. 37, a housewife, had a characteristic illness in November and her blood agglutinated Br. Abortus in a titre of 1 in 640. Samples of milk examined from the farm supplying the household indicated that several cows were infected with this organism, and the Divisional Veterinary Inspector's attention was drawn to the herd in question.

The other case occurred during October in a male aged 23 years, a laboratory attendant, whose blood agglutinated Br. Abortus in a titre of 1 in 2,560. Milk samples from three farms from which milk was supplied to the household were examined, and at two of the farms whey from the milk of grouped and single cows agglutinated Br. Abortus in titres of 1 in 20 and 1 in 40.

There was no evidence that his work in a laboratory had anything to do with his illness, and suspicion fell, therefore, upon an infected milk supply.

CEREBRO-SPINAL FEVER.

Forty-three cases of cerebro-spinal fever were notified and accepted as such in 1938, the diagnosis being confirmed bacteriologically in 32 of them. The cases were widely spread over the city and no particular focus of infection was evident.

There were 17 deaths from this disease, giving a case mortality rate of 39.5 per cent., which compares with a rate of 46 per cent. in 1937.

As regards seasonal prevalence, 14 cases occurred in the first quarter of the year, 17 in the second, 5 in the third, and 7 in the last quarter.

Except in 8 instances all the patients were removed to Monsall Hospital and treatment by serum injected intrathecally was commenced at the earliest opportunity. There is evidence which shows the value of this treatment, especially when it can be given in the early stages of the illness. Further reference is made to the results obtainable by serum treatment in the section of this report dealing with Monsall Hospital on page 186.

Cases of Cerebro-spinal Fever in Age Groups and Sexes, 1938.

Age Groups	No. Cases Males	No. Cases Females	Total
0—5 years	15	7	22
5—10 „	3	3	6
10—15 „	—	1	1
15—20 „	3	—	3
20—25 „	1	1	2
25—35 „	—	1	1
35 and over	6	2	8
All Ages	28	15	43

POLIOMYELITIS.

Particulars of notified cases of poliomyelitis for 1938 are given in the following table :—

Case	Sex	Age Years	Ward	Onset	Notified	Paralysis	Result—Jan., 1939
2	M	3½	St. Michael's	May 2	May 13	Right arm	Nearly normal
4	F	14	Moss Side W.	Aug. 20	Aug. 21	Arms ..	Satisfactory progress
5	F	1½	Blackley ..	Aug. 17	Aug. 21	Left leg, arm, and hand	Satisfactory progress
6	M	18	All Saints ..	Aug. 27	Aug. 31	?	Altrincham home address
7	M	1½	St. Mark's ..	Sept. 3	Sept. 12	Left leg ..	Receiving massage treatment
9	M	12	Longsight ..	Sept. 20	Sept. 24	Left leg ..	Improving
10	F	1½	Blackley ..	Sept. 20	Oct. 4	Left leg ..	No sign of paralysis
11	M	4	Bradford ..	Sept. 29	Oct. 5	Right leg..	Massage treatment
12	M	11	Withington:..	Oct. 21	Oct. 31	Left leg and arms	Still in hospital but improving

ENCEPHALITIS LETHARGICA.

The number of acute cases of encephalitis lethargica occurring annually in the City has been dwindling during the last few years. In 1938 six notifications were received, two of which related to cases which proved to be tubercular meningitis.

Twenty deaths in all were registered during the year in which chronic encephalitis lethargica was declared to be a contributory cause. For the most part these occurred amongst persons who had not previously been notified as suffering from the disease.

Table I. shows the fate, so far as it is known, of patients notified to be suffering from encephalitis lethargica between the years 1919 and 1938. It will be noted that during this period notifications were received and accepted in respect to 744 persons. 349, or 46·9 per cent., have died; 101, or 13·6 per cent., have apparently recovered; 258, or 34·7 per cent., remain alive but are either partially or wholly disabled; and 36, or 4·8 per cent., are untraceable. These figures differ but little from those of the previous year.

There are at the present time 41 male and 46 female patients suffering from chronic encephalitis lethargica in the municipal hospitals. Many of these cases were unnotified in the acute stages of illness.

TABLE 1.
Fate of Encephalitis Lethargica Patients, 1919-1938.
Patients under 16 years at time of notification.

Years	Total No. of cases notified	A No. known to be alive and well	B No. suffering from sequelæ		No. (among B) in whom changes of character have occurred	No. (among B) in whom Parkinsonism has supervened	C No. of Patients known to have died				D No. of Patients untraced
			Interfering with normal schooling or occupation	Preventing normal schooling or occupation			0-1 months after onset	2-6 months	7-12 months	Over 1 year after onset	
1919-23	41	7	7	2	4	5	17	3	1	4	—
1924-28	157	33	32	25	18	19	35	7	—	19	6
1929-33	17	4	—	5	—	—	6	—	1	—	1
1934-38	1	—	—	1	—	—	—	—	—	—	—
Total	216	44	39	33	22	24	58	10	2	23	7

Patients 16 years and over when notified.

1919-23	64	9	12	4	4	10	20	10	3	5	1
1924-28	371	46	49	80	5	61	51	31	9	80	25
1929-33	78	2	10	20	—	8	14	6	3	20	3
1934-38	15	—	4	7	—	1	4	—	—	—	—
Total	528	57	75	111	9	80	89	47	15	105	29

**BACTERIOLOGICAL EXAMINATIONS MADE FOR THE
COUNTY BOROUGH OF MANCHESTER DURING
THE YEAR 1938, PUBLIC HEALTH LABORATORY,
UNIVERSITY OF MANCHESTER.**

Month	Diphtheria		Typhoid	Tuberculosis				Water	
				Sputum		Milk		Bacterio- logical	Chemical
	Total	+	Total	Total	+	Total	+	Total	Total
January	1845	143	10	179	15	54	4	—	—
February	1160	148	7	159	20	74	7	38	18
March	1485	189	11	217	29	75	3	—	—
April	1248	142	7	126	17	107	6	—	—
May	1020	102	2	155	13	100	10	42	16
June.. .. .	884	84	13	103	16	139	16	—	—
July	720	65	5	96	16	173	20	—	—
August	803	97	17	104	15	95	7	74	23
September	859	87	12	120	13	125	9	—	—
October	790	93	10	118	19	168	14	—	—
November	1005	72	8	98	12	188	13	29	22
December	798	103	4	92	14	128	12	—	—
Total	12617	1325	106	1567	199	1426	121	183	79

Total specimens enumerated above 15,978. Other investigations 1,901 as under :—

Milks—Coli, etc.	542
„ Chemical examinations	120
„ Methylene blue reduction test.. .. .	151
„ Microscopical for tubercle bacilli	7
„ For abortus	33
Diphtheria—Virulence tests	421
Swabs—For hæmolytic streptococci	445
„ Vincent's angina	7
„ For meningococci	11
Cerebro-spinal fluid	32
Cultivation tests	9
Maternity outfits	2
Microscopical tests	7
Typing meningococci	7
Tuberculosis, various specimens examined for	30
Specimens, for typhoid, etc.	52
Food, etc., for food poisoning	20
Anthrax	5

1,901

MEASLES AND GERMAN MEASLES.

Cases notified	1938				Total
	1st quarter	2nd quarter	3rd quarter	4th quarter	
MEASLES—					
By Doctors	6,369	1,050	116	135	7,670
„ Others	1,812	414	27	26	2,279
Total	8,181	1,464	143	161	9,949
GERMAN MEASLES—					
By Doctors	113	121	60	53	347
„ Others	8	10	7	3	28
Total	121	131	67	56	375

The deaths from measles in successive years are shown in the following table :—

TABLE I.

Deaths from Measles in the City of Manchester during the
Ten Years, 1929—1938.

Years	Under One Year			Years of Age				5 Years and upwards	Total deaths at all ages
	Under 3 Months	3-5 Months	6-11 Months	1-	2-	3-	4-		
1929	0	1	17	28	4	6	2	2	60
1930	1	6	32	61	20	13	6	7	146
1931	2	5	4	28	11	8	2	5	65
1932	0	2	24	55	14	11	5	11	122
1933	0	0	7	23	4	4	5	5	48
1934	1	4	13	40	12	7	11	9	97
1935	0	3	13	51	7	10	11	3	98
1936	0	5	32	46	13	7	5	13	121
1937	1	0	8	16	6	4	5	5	45
1938	0	1	12	23	7	5	4	5	57

TABLE 2.
Incidence of Measles in Manchester during the Year 1938,
according to Age Groups.

Disease	Under 5 years	5 years and over	Total
Measles	6,783	3,166	9,949

TABLE 3.
Measles, Deaths in Quarters.

YEAR	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year
1901-1910 (mean) .	80	122	68	59	329
1911-1920 (mean) .	87	125	33	32	277
1921-1930 (mean) .	51	62	26	30	159
1931	3	9	3	50	65
1932	89	30	1	2	122
1933	1	2	6	39	48
1934	88	7	1	1	97
1935	1	2	5	90	98
1936	104	17	—	—	121
1937	2	3	3	37	45
1938	43	14	—	—	57

TABLE 4.
Measles Mortality Rates.—Rate per 1,000 Living,
compared with Mean of Five Years.

	1933	1934	1935	1936	1937	Mean 5 years	1938
England and Wales ..	0.05	0.09	0.03	0.07	0.02	0.05	0.04
126 Great Towns ..	0.06	0.12	0.04	0.09	0.03	0.07	0.05
London	0.02	0.20	0.00	0.14	0.01	0.07	0.06
CITY OF MANCHESTER.	0.06	0.13	0.13	0.16	0.06	0.11	0.07
148 Smaller Towns ..	0.04	0.07	0.03	0.04	0.02	0.04	0.03

WHOOPING COUGH.

The cases of this disease notified are obtained entirely through the schools, and the same disabilities attach to this mode of notification as were experienced in measles. Notwithstanding, these notifications are useful. The cases are visited and dealt with by the Health Visitors in the same manner as cases of measles.

Whooping cough notifications during 1938 :—

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
1938	166	290	319	300	1,075

TABLE 1.

Whooping Cough Mortality.—Rate per 1,000 Living, compared with Mean of Five Years.

	1933	1934	1935	1936	1937	Mean 5 years	1938
England and Wales ..	0·05	0·05	0·04	0·05	0·04	0·05	0·03
126 Great Towns ..	0·06	0·06	0·04	0·06	0·04	0·05	0·03
London	0·08	0·07	0·04	0·06	0·06	0·06	0·03
CITY OF MANCHESTER.	0·06	0·05	0·06	0·06	0·07	0·06	0·02
148 Smaller Towns ..	0·04	0·02	0·03	0·04	0·03	0·03	0·02

TABLE 2.

Whooping Cough, Deaths in Quarters.

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year
1911-1920 (Mean)	59	73	24	17	173
1921-1930 (Mean)	48	52	15	15	130
1931	31	15	18	22	86
1932	39	27	7	7	80
1933	16	14	8	9	47
1934	14	12	6	3	35
1935	6	18	14	8	46
1936	21	12	10	4	47
1937	18	24	9	2	53
1938	5	4	3	2	14

TABLE 3.
Incidence of Whooping Cough (known cases) in Manchester
during the Year 1938 according to Age Groups.

Disease	Under 5 years	5 years and over	Total
Whooping Cough	861	214	1,075

A Comparison of Mortality from Scarlet Fever, Diphtheria,
Measles, and Whooping Cough.

YEAR	WHOOPIING COUGH		MEASLES		SCARLET FEVER		DIPHTHERIA	
	Known Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1929	4,037	220	9,512	60	2,318	11	761	57
1930	1,388	37	10,738	146	3,701	16	838	58
1931	3,150	86	7,771	65	2,913	8	573	60
1932	2,280	80	12,238	122	2,283	17	885	82
1933	2,230	47	6,350	48	1,773	18	732	86
1934	1,565	35	11,383	97	2,080	14	866	84
1935	1,632	46	9,907	98	2,795	15	903	57
1936	1,457	47	8,807	121	2,402	10	1,202	92
1937	1,403	53	6,550	45	2,578	9	1,397	90
1938	1,075	14	9,949	57	2,396	9	1,193	54
Total	20,217 *	665	93,205	859	25,239	127	9,350	720
Manchester— Case fatality rate per cent.	3·3		0·9		0·5		7·7	

* It should be pointed out that the estimated number of cases (20,217) occurring during the 10 years does not represent all the actual cases. Since this disease is not notifiable by medical practitioners, many cases escape our notice.

DIARRHŒA.

TABLE 1.

1938.—Diarrhœa and Simple Cholera Mortality :
Deaths under Two Years of Age per 1,000 Births,
compared with the Mean of Five Years.

	1933	1934	1935	1936	1937	Mean 5 years	1938
England and Wales ..	7·1	5·5	5·7	5·9	5·8	6·0	5·5
126 Great Towns ..	9·4	7·4	7·9	8·2	7·9	8·2	7·8
London	11·6	12·6	11·2	14·4	12·0	12·4	13·1
CITY OF MANCHESTER.	8·6	11·2	7·5	6·1	6·7	8·0	7·8
148 Smaller Towns ..	4·9	3·6	3·8	3·4	3·2	3·8	3·6

The number of deaths in successive years, and their distribution in quarters of the year, are exhibited in the following figures :—

TABLE 2.

Diarrhœa and Simple Cholera Deaths in Quarters 1929—1938.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
First Quarter	38	46	55	32	28	29	18	29	20	16
Second Quarter	45	39	34	33	30	41	25	12	17	33
Third Quarter	38	26	28	27	17	29	23	15	22	22
Fourth Quarter	58	42	31	24	21	29	19	17	21	16
	179	153	148	116	96	128	85	73	80	87

DYSENTERY.

Forty-one cases of Sonne dysentery came to the notice of the department during the year. These occurred mainly in children, and the majority were notified from the hospitals in the City.

All cases were of a mild nature, many of them presenting little more than diarrhœa associated with the presence of B. Sonne.

The ten dysentery carriers (seven amœbic and three bacillary) which are known to the department have been visited each six months. Investigation of the health of the members of the patients' families revealed no suspicious symptoms.

MALARIA.

No cases of malaria were notified in 1938.

ANTHRAX.

One case of anthrax was brought to the notice of the Medical Officer of Health on 7th June. It was a fatal case of malignant pustule in a man, aged 30, who was a market gardener. The history disclosed that on May 30th he had been working with an artificial manure, and on June 1st was seen to have an acutely inflamed papule on his neck. He was admitted to hospital on June 3rd and died three days later from anthrax septicæmia.

Investigations showed that the fertiliser was a mixed one from two sources and consisted of dried blood and bone from the carcasses of horses and cattle. No evidence was obtained to suggest the existence of the disease in animals or carcasses at either of the sources concerned. No anthrax bacilli were isolated from the fertiliser by culture or by animal inoculation, but nevertheless it seems likely that the fertiliser was the infecting agent. Other possibilities were fully explored and negatived.

The remainder of the fertiliser was destroyed and the premises where it had been stored were thoroughly cleansed and disinfected.

FOOD POISONING.

An outbreak of bacterial food poisoning involving persons in the Manchester and Salford areas occurred in July. The outbreak came to our notice by the death of a man aged 69 who was thought to have suffered from food poisoning. Post mortem examination, however, revealed no signs of inflammation of the stomach or bowels, and death was certified as due to cardiac causes. Two other members of the deceased's household were ill at the same time with signs of food poisoning, ascribed to eating a pork pie on July 10th. Subsequently it was learned that five persons in another Manchester family became ill on July 11th. They also had eaten pork pie on July 10th. The pies, as well as those in connection with the Salford cases, were supplied from a common bakehouse. A *Salmonella* food-poisoning organism (*S. thompson*) was isolated from the affected persons, but no pork pie was available for examination. There were no other deaths in connection with the outbreak in Manchester.

In January food poisoning was suspected at a student's hostel where some 20 persons exhibited signs and symptoms of gastro-enteritis. The illness was in each case mild and of comparatively short duration. Results of bacteriological investigations were negative and no particular item of food appeared to be definitely implicated.

Twelve other investigations were carried out during the year mainly in connection with isolated cases of illness in which organisms of the food-poisoning group were found.

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

These regulations, which came into force on May 1st, 1925, are administered by the Public Health Committee in so far as Part V., which relates to shops, stores, etc., is concerned. With a view to the equitable administration of the regulations, the co-operation of the interested trades was sought at the time the regulations came into force and mutual agreement with the associations concerned was arrived at on the following points :—

Requirements.

1. Meat shall not be hung outside premises.
2. All meat which is displayed must be protected from the dust of the streets by glass windows.
3. Reasonable precautions must be taken to protect meat from flies.
4. The provision of covered receptacle of suitable material for refuse and sweepings is imperative, and the receptacle must be kept clean.
5. Shops must be adequately ventilated.

These agreed conditions have greatly facilitated the administration of the Meat Regulations. This strikingly illustrates the value of conference between the Public Health Committee and accredited representatives of interested trades as a preliminary to administration of such regulations.

174 visits were paid during the year to meat shops by the special inspectors, and it was found that these requirements and suggestions were generally being carried out.

REPORT FROM MARKETS DEPARTMENT AS TO SUPERVISION OF MEAT AND OTHER FOODS.

The Medical Officer of Health is indebted to the General Manager for the following particulars relating to the operations of the Markets Department during the year ended 31st March, 1938.

The number of animals slaughtered at the city abattoir during certain years is shown in the subjoined statement "A."

The bulk of the meat, fish, and fruit which is condemned is found to be unfit for food on arrival at the markets, railway stations, and wholesale houses. An efficient system of inspection at the centre of distribution lessens the risk of diseased meat, etc., being exposed for sale in retail shops.

The staff of inspectors comprises 1 chief veterinary inspector, 3 assistant veterinary inspectors, and 10 meat, fish, etc., inspectors.

Statement "B" shows the total condemnations in the city and statement "C" the total weight of meat condemned at the city abattoir and wholesale meat market.

Statement "A."

Animals Slaughtered at City Abattoir during certain Years.

Year ended 31st March	Cattle	Sheep	Lambs	Calves	Pigs
1910	38,389	193,855	57,553	2,179	10,486
1920	89,143	214,363	48,656	8,202	9,636
1930	73,244	272,868	119,299	5,472	15,259
1931	64,354	240,219	106,091	5,246	14,945
1932	57,418	308,249	95,079	5,474	17,776
1933	56,083	337,398	135,202	6,079	15,460
1934	60,109	333,947	153,408	7,852	11,868
1935	67,735	296,767	146,082	10,067	13,003
1936	77,239	411,464		10,628	14,216
1937	74,560	435,204		11,553	12,586
1938	64,697	394,910		8,776	10,552

Statement "B."

Total Condemnation of various Foodstuffs during 1932-38.

Kind of Food	1932	1933	1934	1935	1936	1937	1938
	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Meat	399 $\frac{1}{4}$	458	537 $\frac{3}{4}$	601 $\frac{1}{2}$	703 $\frac{3}{4}$	707 $\frac{3}{4}$	692 $\frac{3}{4}$
Fish	106 $\frac{3}{4}$	102 $\frac{1}{2}$	108 $\frac{1}{4}$	110 $\frac{1}{2}$	100 $\frac{3}{4}$	102 $\frac{1}{2}$	99 $\frac{1}{2}$
Fruit	42 $\frac{3}{4}$	24 $\frac{1}{2}$	43 $\frac{3}{4}$	70	51 $\frac{1}{4}$	65 $\frac{1}{4}$	40 $\frac{1}{2}$
Vegetables	137 $\frac{3}{4}$	307	113 $\frac{1}{4}$	167 $\frac{1}{2}$	180 $\frac{1}{4}$	311	122 $\frac{1}{4}$
Eggs (number)	4,149	..	4,224	5,560	7,608	15,942	4,608
Game (head)	122	147	518	1,136	1,329	591	929
Poultry (head)	4,582	5,577 $\frac{1}{2}$	5,458	5,384	3,504	6,069	10,530
Rabbits (head)	10,401	8,932	7,111	18,717	12,206	35,949	25,768

Statement "C."

Meat Condemned at the City Abattoir and Wholesale Meat Market during 1932-38.

Particulars	1932	1933	1934	1935	1936	1937	1938
	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Total weight of meat condemned at the city abattoir and wholesale meat market	368	426½	505¾	565¾	663¼	655	652
Of which the weight of dressed meat consigned from places other than the city was ..	160	180¼	194¾	244¾	266½	253	232½
Included in which were imported offals amounting to	1	4½	4¼	2	1½	1	1¼

Unwholesome Food Condemned during 1935-38.

Kind of Food	1935-36	1936-37	1937-38
MEAT :—	lbs.	lbs.	lbs.
Beef	1,374,382	1,392,420	1,377,787
Mutton	34,401	34,104	27,424
Veal	23,901	28,540	28,841
Venison	468	112	56
Pork	140,060	127,928	115,334
Imported offal	3,420	2,113	2,573
	1,576,632 = 703¾ tons	1,585,217 = 707¾ tons	1,552,015 = 692¾ tons
FISH :—			
Fish	215,094	218,744	185,812
Shellfish	10,818	11,043	37,329
	225,912 = 100¾ tons	229,787 = 102½ tons	223,141 = 99½ tons

UNWHOLESOME FOOD CONDEMNED—*continued*

	1935-36	1936-37	1937-38
	HEAD	HEAD	HEAD
GAME	1,329	591	929
POULTRY	3,504	6,069	10,530
RABBITS	12,206	35,949	25,768
	LBS.	LBS.	LBS.
FRUIT	115,196 = 51½ tons	146,022 = 65½ tons	91,108 = 40½ tons
VEGETABLES	403,725 = 180½ tons	696,752 = 311 tons	273,954 = 122½ tons
MISCELLANEOUS :—	NO.	NO.	NO.
Eggs	7,608	15,942	4,608
	LBS.	LBS.	LBS.
Condensed milk	—	244	26
Sundry provisions	1,937	3,720	2,603

With the exception of the following, which were seized while deposited or exposed for sale, the quantities given in the preceding tables were surrendered after being condemned by inspectors of the department :—

	1935-36	1936-37	1937-38
	LBS.	LBS.	LBS.
Meat	285	—	151
Fish	—	—	85
	HEAD	HEAD	HEAD
Poultry	—	17	33
	LBS.	LBS.	LBS.
Fruit.. .. .	120	1,690	839
Vegetables	—	7,578	133
Sundry provisions	—	2,356	273½
			No.
Eggs	—	—	48

NOTE.—The term “surrendered” includes cases in which inspectors have discovered unwholesome food in the course of their duty, but in which, owing to the salesman’s acceptance of the inspector’s decision it has been deemed unnecessary to obtain a magistrate’s order prior to destruction.

Carcases Inspected and Condemned.

		Cattle			Sheep and Lambs	Pigs
		Excluding Cows	Cows	Calves		
Number killed and Inspected	A	52,536	11,858	8,204	481,572	9,761
Do. do.	B	*3,128	Not known	1,271	21,276	6,586
Number brought in dead and inspected..	C	*7,880	Not known	15,652	10,034	36,938
ALL DISEASES EXCEPT TUBERCULOSIS.						
Whole carcasses condemned	A	*68	Not known	13	399	26
	B	*1	Not known	7	32	35
	C	*520	Not known	349	148	222
Carcases of which some part or organ was condemned	A	*4,183	Not known	7	192	363
	B	*99	Not known	8	69	144
	C	*1,006	Not known	28	13	232
Percentage of the number inspected affected with disease other than tuberculosis	A	6.6		.24	.12	4.0
	B	3.2		1.2	.47	2.7
	C	19.4		2.4	1.6	1.23
TUBERCULOSIS ONLY.						
Whole carcasses condemned	A	72	473	4	Nil	21
	B	2	11	Nil	Nil	15
	C	*191	Not known	19	Nil	95
Carcases of which some part or organ was condemned	A	1,796	2,728	4	Nil	773
	B	66	72	2	Nil	503
	C	*1,267	Not known	4	Nil	1,668
Percentage of the number inspected affected with tuberculosis	A	3.6	27.0	.10	Nil	8.1
	B	4.8		.16	Nil	7.9
	C	18.5		.15	Nil	4.8

There is no meat marking scheme under Part III. of the Public Health (Meat) Regulations, 1924, in force in this City.

NOTES.

A—Animals killed at the City Abattoir.

B—Animals killed at Rusholme Abattoir and other private slaughter-houses.

C—Animals killed elsewhere in British Isles and brought into the City Abattoir.

* These figures *include* cows, separate records not being kept.

All figures given are for the calendar year 1938.

TUBERCULOSIS.

By Dr. D. P. SUTHERLAND, Senior Tuberculosis Officer.

The year 1938 was characterised by an improvement in the general death rate and by a diminution in the mortality from all respiratory diseases. There was also a marked decrease in fatal cases of tuberculosis, both amongst the pulmonary and non-pulmonary forms of that complaint.

Notification.

The notification rate for all forms of tuberculosis in 1938 is 1·67 per 1,000 population, a decrease of ·23 upon the figure for 1937. The pulmonary rate has decreased by ·13 and the non-pulmonary by ·10.

Pulmonary Tuberculosis.

The decrease in the notifications amongst males was chiefly in the age groups 25–54, and in these was fairly evenly distributed. There was a slight but insignificant rise in the ages 20–24.

The decline in notification amongst females continued from 1937, and was not characterised by any particular group features. There were actually 108 fewer notifications amongst both sexes, and the decline in males was greater than that in females, as was to be expected; this corrected last year's increase in the former sex.

Non-Pulmonary Tuberculosis.

The decreases here in notifications do not present any particular features calling for comment. They are greater amongst the females, and in both sexes are fairly evenly distributed in the various age groups.

Mortality.

The death-rate this year for all forms of tuberculosis is ·97 per 1,000, being made up of ·83 for pulmonary tuberculosis, and ·14 for the non-pulmonary form.

Pulmonary Tuberculosis.

The total decline in the male deaths was 25, and occurred in all age groups except those for 45–64, where there was an increase. The group aged 65 and upwards, which had shown an increase in 1937, we find this year to be decreased by 17.

The female deaths are down by 19, and the only group showing any significant increase is that at ages 25–34. It is gratifying to note that the diminution in the deaths of the young females between the ages of 15 and 24, to which attention was drawn somewhat fully in 1932, continues unabated in Manchester.

Non-Pulmonary Tuberculosis.

There is a decrease here of 0·02 per 1,000. The total figures are small, and no particular features emerge either in relation to age or sex.

Tuberculous meningitis shows a decrease of 11 cases (4 males and 7 females), mostly in the earlier years of life.

Thoracic Surgery.

During the past few years an increasing amount of surgical treatment has been carried out upon suitable cases suffering from tubercular and other chest complaints. Early in the year under review a report upon this subject was prepared and presented to the Joint Hospital Board. A copy of this report follows.

Co-ordinated Thoracic Surgery Service.

Some time ago a small Sub-Committee of the Medical Board of the Manchester Royal Infirmary, in consultation with Dr. D. P. Sutherland, considered the question of the development of Thoracic Surgery in Manchester, and as to the lines along which such development should proceed.

An essential part of the subject concerns the surgical treatment of pulmonary tuberculosis.

It is of primary importance that if thoracic surgery is to be efficiently done it must be concentrated so that not only the operating team, but also the medical and nursing staff, who will have the subsequent care of the patient, may be experienced in this very specialised type of work. From this point of view, considered by itself, it would be ideal if all patients, tuberculous and non-tuberculous, were treated in the same department at the same hospital.

Reasons are very obvious why it is not desirable to make a regular practice of treating cases of pulmonary tuberculosis in the wards of a general hospital. Moreover, the routine treatment of these cases is one of the duties imposed upon local health authorities, and is already undertaken by the Public Health Service, the surgical treatment of such cases demanding close co-operation with the Tuberculosis Department of that Service.

The Sub-Committee of the Medical Board expressed the opinion that a co-ordinated thoracic surgery service should be divided to this extent, that the non-tuberculous patients should continue to be treated at the Royal Infirmary and that the tuberculous ones should have their surgical treatment in Municipal Hospitals and Sanatoria.

This, therefore, is a matter of co-ordination between the Voluntary and Municipal Hospitals, and in order to assist the Joint Board in the consideration of this matter, the following Memorandum on a Co-ordinated Thoracic Surgery Service in Manchester has been prepared :—

PART I.

Thoracic surgery, though it has increased greatly in importance in recent years, and is tending to become one of the surgical specialities, covers a limited field so far as the number of patients is concerned. It is highly specialised and demands expert knowledge and experience, not only on the part of the surgeon but also on the part of all members of the service. These two facts make it important that the work which offers itself should be carried out, so far as possible, in the same place and by the same staff. It is felt that Manchester, with its teaching school and its population, is destined naturally to be a centre of thoracic surgery. For reasons which will appear, however, the realisation of that idea can only be achieved by means of ordered planning.

One of the main questions to be considered in any such plan is that of pulmonary tuberculosis. That only a minority of patients suffering from this disease require surgical treatment is an added reason for concentrating the work in the hands of an efficient team. Tuberculosis Officers are generally fully alive to this fact, and agree that nothing could be worse than sporadic operating of a major kind on two or three cases a year, in scattered sanatoria up and down the country, which are ill-equipped in specially trained personnel and theatre facilities for such enterprise. It is thought, and experience, so far as it goes, justifies the belief, that in spite of considerations of local administration and local patriotism, an active centre of thoracic surgery could attract an amount of work from surrounding districts which would add to its importance and prestige.

From the purely surgical point of view there is much to be said for the treatment of all patients who require chest operations, tuberculous and non-tuberculous, in the same department of the same hospital, and this method is successfully practised at some centres in this and other countries. There are, however, in the case of tuberculous patients, other considerations, some of which, it must be said, have in practice so far proved more imaginary than real.

- (1) Some of the major operations can hardly be described as "incidents." Yet it is particularly desirable, in the case of tuberculous patients, not to magnify out of due proportion such procedures as can be made an incidental part of an inevitably long course of treatment.
- (2) Patients transferred to the Royal Infirmary temporarily lose touch with those who are carrying out the routine treatment of tuberculosis. It is important that continuity be preserved and the closest co-operation between physician and surgeon shall be maintained.
- (3) There may arise the question of fear of exposure on the part of the nursing staff.
- (4) Non-tuberculous patients might object to the proximity of the tuberculous ones.

These considerations make it seem desirable that cases of surgical pulmonary tuberculosis should be treated in Municipal Hospitals and Sanatoria.

The surgical measures used in the treatment of pulmonary tuberculosis fall into three groups—

- (A) Those which have come to be carried out as part of routine sanatorium treatment by the Medical Superintendent and his assistants ;
- (B) those which require the services of a surgeon, but no elaborate arrangements and no prolonged surgical after-care ;
- (c) those which require all the resources of a full operating team and a modern operating theatre ; and a specially experienced surgical nursing staff for the after-care.

PART II.

The problem which arises out of the foregoing considerations can be summarised as the attainment of four, in some ways incompatible, ends :—
(a) Concentration of the work ; (b) separation of tuberculous from non-tuberculous patients ; (c) provision of adequate surgical facilities and personnel for the particular type of treatment to be used ; (d) continuity of treatment of tuberculous patients.

For the theoretically ideal solution of the problem, two provisions would be necessary—

- (i.) A large surgical centre with a department of thoracic surgery ;
- (ii.) a sanatorium of sufficient size itself to provide a nucleus of surgical cases, and in close enough proximity to the surgical centre to be serviced from there, with an up-to-date operating theatre and a medical and nursing staff trained in the after-care of the major as well as the minor cases. It might be expected that tuberculous patients in need of surgical attention of the kinds included in groups (B) and (c) above, would be drafted in from neighbouring sanatoria, so that, while continuing to have the advantage of a sanatorium regime, they would as well receive their surgical treatment under the best conditions.

PART III.

In the practical application of these considerations to the inception of a Co-ordinated Thoracic Surgery Service in Manchester, it soon becomes apparent that some compromise will be necessary at first.

There exists at the Royal Infirmary a Department of Thoracic Surgery.

Baguley Sanatorium is within reasonable distance of the City. It will have a treatment room which, when modified in accordance with suggestions which are being made, will be suitable for the types of treatment described under headings (A) and (B). It is felt that, until knowledge has been gained of the call which would be made on an operating theatre, the financial expenditure necessary to provide one at Baguley would scarcely be justified, however necessary such provision might be found to be in the future.

There are at Withington Hospital tuberculosis wards and a modern operating theatre.

PART IV.

The practical suggestions, therefore, are these :—

- (1) That non-tuberculous patients should be concentrated at the Manchester Royal Infirmary. There would remain, after elimination of the tuberculous cases, an amply sufficient amount of work to keep an active department busy. To imply that the bounds of thoracic surgery are co-terminous with those of the surgery of pulmonary tuberculosis, would be to give a very erroneous impression. Of 252 diagnostic and therapeutic operations carried out during 1937 in the Department of Thoracic Surgery at the Royal Infirmary, 44 have been for patients suffering from pulmonary tuberculosis. 25 of these fell within category (B) and 19 within category (C).
- (2) That surgical treatment under heading (A) should continue to be given, as at present, in the various sanatoria, and that that under heading (B) should be concentrated at Baguley Sanatorium.
- (3) That surgical treatment under heading (C) should be carried out at Withington Hospital.
- (4) That it should be possible to admit patients sent by other Local Authorities.
- (5) That the possibility of sending some members of the Nursing Staff to a special chest hospital, such as the Brompton Hospital, for a short period of training, should be explored.

A. GRAHAM BRYCE.

D. P. SUTHERLAND.

March 17th, 1938.

This scheme was approved, and, after the necessary details had been worked out, it was adopted. It marks a further important advance in the complete scheme for dealing with tuberculosis and is now in operation.

The total number of cases up-to-date in whom sanatorium treatment has been supplemented by surgical measures is 727. This figure includes :—

Artificial pneumothorax	528 cases.
Phrenic operation and artificial pneumothorax ..	77 „
Phrenic operation without artificial pneumothorax	68 „
Adhesion cutting	36 „
Thoracoplasty	12 „
Extra-pleural pneumothorax	6 „

Artificial pneumothorax and the results obtained by its use has been dealt with in former reports. A further summary of additional cases treated by this means, and by the more recent surgical measures, will be presented later.

Housing.

The department continues its activities in making special enquiries into the housing conditions of families in whom tuberculosis has occurred, with a view to securing improved accommodation by removal to Corporation houses.

Careful consideration is given to the home circumstances in relation both to the suitability of the conditions under which the patient is living and the possibility of family infection.

Well over a thousand detailed housing reports have been made, each of which has received careful scrutiny to decide whether the family should be recommended for special preference in securing a Corporation tenancy.

221 such special recommendations have been made and 145 have secured Corporation houses. Of the remaining 76 families, in 35 instances they were successful in obtaining other suitable alternative accommodation themselves, and the balance of 41 families is accounted for by removals out of the Manchester area, etc.

The statistics for the year are set out in the following tables:—

TABLE 1.
Rates per Thousand of the Population.

Comparative Figures.

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
DEATH RATES:—													
General	13·28	13·90	13·06	15·51	13·07	13·86	13·03	13·41	12·24	12·91	13·50	13·52	12·35
All respiratory diseases (except tuberculosis)	2·61	2·93	2·42	3·25	2·10	2·59	1·98	1·97	1·47	1·73	1·83	1·70	1·32
Tuberculosis (all forms)	1·41	1·38	1·29	1·4	1·37	1·29	1·17	1·15	1·13	1·04	1·01	1·04	·97
Phthisis, both sexes	1·19	1·15	1·10	1·21	1·15	1·12	1·00	1·00	·97	·92	·87	·88	·83
„ males only	1·58	1·41	1·42	1·54	1·41	1·43	1·23	1·25	1·32	1·17	1·09	1·10	1·04
„ females only	·84	·92	·80	·91	·91	·82	·79	·78	·66	·69	·67	·69	·64
Non-pulmonary tuberculosis, both sexes	·22	·22	·19	·19	·22	·17	·16	·15	·16	·12	·14	·16	·14
TUBERCULOSIS NOTIFICATION RATES:—													
All forms	2·44	2·53	2·51	2·28	2·23	2·32	1·93	1·80	1·79	1·69	1·65	1·90	1·67
Pulmonary only	1·84	1·88	1·87	1·79	1·64	1·67	1·41	1·40	1·39	1·30	1·26	1·40	1·27
Non-pulmonary only	·60	·65	·64	·48	·59	·65	·52	·40	·40	·40	·39	·50	·40

TABLE 2.
New Cases and Deaths during 1938.

Age Periods	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0	4	2	8	2	1	..	6	2
1	5	3	26	15	2	1	12	5
5	14	13	27	24	..	2	7	6
10	14	16	24	23	2	5	4	6
15	52	64	21	21	14	32	3	5
20	64	82	9	18	21	57	2	5
25	88	104	17	22	52	76	4	8
35	97	55	11	7	59	36	2	5
45	98	36	8	7	100	26	9	3
55	83	21	1	5	91	13	..	4
65 and upwards	28	4	2	5	24	6	5	2
Totals ..	547	400	154	149	366	254	54	51

The number of non-notified deaths from pulmonary tuberculosis was 10 = 1.61 per cent.

The number of non-notified deaths from non-pulmonary tuberculosis was 10 = 9.52 per cent., but it is to be noted that 5 of the 10 cases were certified as cases of tubercular meningitis. These cases as a rule have a very short illness, and diagnosis is frequently in doubt during life.

The percentage of non-notified deaths from all forms of tuberculosis was 2.75.

There were, in addition, 6 deaths of non-notified cases outside Manchester which were adjudged by the Registrar-General to be properly referable to this area.

TABLE 3.

Primary Notifications and Deaths from Pulmonary Tuberculosis, 1917-1938.

Age—Groups.

Pulmonary Tuberculosis	Age—Groups.											TOTAL	
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	Notifications	Deaths
Notifications, 1917-1923..	66	439	1120	1174	1912	2031	3659	3630	2930	1432	525	18928	11495
Deaths, " " ..	42	164	116	248	1065	1214	2068	2488	2429	1192	469		
Notifications 1929 ..	1	18	38	43	146	191	294	254	235	135	30	1385	930
Deaths, " " ..	1	7	3	7	76	117	179	190	191	121	38		
Notifications, 1930 ..	2	11	55	37	147	184	263	227	203	122	36	1287	903
Deaths, " " ..	6	2	6	9	89	110	200	150	168	129	34		
Notifications, 1931 ..	1	10	75	63	143	191	263	209	191	113	26	1285	855
Deaths, " " ..	3	4	6	10	67	111	195	151	166	109	33		
Notifications, 1932 ..	1	24	32	28	146	158	234	194	172	74	24	1087	770
Deaths, " " ..	2	17	2	10	52	114	151	136	167	91	28		
Notifications, 1933 ..	3	11	17	27	125	170	253	176	188	85	26	1081	773
Deaths, " " ..	2	4	3	7	68	105	159	161	146	95	23		
Notifications, 1934 ..	..	9	19	40	127	170	228	172	164	104	40	1073	751
Deaths, " " ..	4	7	6	6	49	107	146	141	152	98	35		
Notifications, 1935 ..	3	9	35	31	106	151	209	185	167	89	21	1006	711
Deaths, " " ..	3	2	7	4	56	93	152	122	155	81	36		
Notifications, 1936 ..	1	6	17	34	104	167	202	174	132	106	32	975	671
Deaths, " " ..	1	3	5	12	59	84	129	130	120	100	28		
Notifications, 1937 ..	2	12	28	21	130	149	219	180	150	117	47	1055	664
Deaths, " " ..	1	6	2	2	58	77	126	128	114	100	50		
Notifications, 1938 ..	6	8	27	30	116	146	192	152	134	104	32	947	620
Deaths, " " ..	1	3	2	7	46	78	128	95	126	104	30		
Total notifications ..	86	557	1463	1528	3202	3708	6026	5553	4666	2481	839	30109	19143
Total deaths ..	66	219	158	322	1685	2210	3633	3892	3934	2220	804		

TABLE 4.

Primary Notifications and Deaths from Non-Pulmonary Tuberculosis, 1917-1938.

Age—Groups.

Non-pulmonary Tuberculosis	Age—Groups											TOTAL	
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	Notifications	Deaths
Notifications, 1917-1928 ..	207	1337	1509	1247	924	505	525	331	249	153	97	7084	2724
Deaths, " ..	267	790	323	297	268	163	183	150	135	86	62		
Notifications, 1929 ..	11	65	78	40	55	28	44	27	13	9	5	375	152
Deaths, " ..	13	31	17	10	18	17	16	10	3	11	6		
Notifications, 1930 ..	17	89	108	63	46	42	41	20	20	16	4	466	174
Deaths, " ..	10	49	20	9	23	16	13	11	14	3	6		
Notifications, 1931 ..	10	83	95	87	67	40	55	22	23	6	8	496	132
Deaths, " ..	10	43	11	9	16	2	16	9	5	6	5		
Notifications, 1932 ..	6	69	86	49	55	33	45	30	18	8	3	402	126
Deaths, " ..	7	38	20	10	12	7	10	4	8	5	5		
Notifications, 1933 ..	6	46	70	41	33	33	35	27	13	8	1	313	114
Deaths, " ..	7	26	13	6	18	7	13	11	7	3	3		
Notifications, 1934 ..	7	52	64	43	37	30	39	21	11	6	3	313	125
Deaths, " ..	9	24	15	11	14	14	15	12	6	3	2		
Notifications, 1935 ..	3	45	56	45	31	27	49	23	13	8	6	307	95
Deaths, " ..	3	18	9	6	8	12	8	14	8	1	1		
Notifications, 1936 ..	4	50	57	49	38	33	29	13	14	7	3	301	109
Deaths, " ..	7	21	15	9	14	12	8	4	10	2	2		
Notifications, 1937 ..	9	53	67	43	66	36	45	26	8	13	9	376	119
Deaths, " ..	5	23	10	10	12	11	13	9	6	7	7		
Notifications, 1938 ..	10	41	51	47	42	27	39	18	15	6	7	303	105
Deaths, " ..	8	17	13	10	8	7	12	7	12	4	7		
Total notifications ..	290	1930	2241	1754	1394	834	946	558	397	246	146	10736	3975
Total deaths ..	346	1080	466	387	411	268	307	241	214	149	106		

TABLE 5.

Primary Notifications of Pulmonary and Non-Pulmonary
Tuberculosis received from Municipal Wards during 1938.

Wards	Pulmonary	Non-Pulmonary	Totals
1. Exchange	—	—	—
2. New Cross	39	11	50
3. St. Clement's	3	1	4
4. Oxford	4	—	4
5. St. John's	4	1	5
6. St. Ann's	—	1	1
7. St. Michael's	27	8	35
8. Collyhurst	18	8	26
9. Cheetham	33	4	37
10. Collegiate Church	31	5	36
11. Crumpsall	26	6	32
12. Blackley	24	3	27
13. Harpurhey	23	6	29
14. Moston	26	8	34
15. Newton Heath	23	9	32
16. Miles Platting	17	6	23
17. Bradford	38	10	48
18. Beswick	37	10	47
19. Ardwick	29	15	44
20. Openshaw	20	5	25
21. St. Mark's	33	11	44
22. Longsight	32	9	41
23. All Saints'	38	6	44
24. St. Luke's	42	23	65
25. Medlock Street	29	16	45
26. St. George's	45	8	53
27. Moss Side East	24	4	28
28. Moss Side West	27	12	39
29. Chorlton-cum-Hardy	38	14	52
30. Didsbury	29	6	35
31. Withington	43	24	67
32. Gorton North	29	5	34
33. Gorton South	39	18	57
34. Levenshulme	8	7	15
35. Rusholme	34	8	42
36. Wythenshawe	33	15	48
37. Abergale Sanatorium	2	—	2
Total—City of Manchester ..	947	303	1,250

TABLE 6.

Sources of Notification of Tuberculosis during 1938.

Source	Pulmonary	Non-Pulmonary	Totals
Crumpsall Hospital	83	20	103
Withington Hospital	129	32	161
Booth Hall Hospital	37	42	79
District Medical Officers	2	1	3
Manchester Royal Infirmary	33	38	71
Ancoats Hospital.. .. .	16	29	45
Skin Hospital	—	8	8
St. Mary's Hospital	4	7	11
Northern Hospital	4	1	5
Jewish Hospital	3	2	5
Pendlebury Hospital	3	9	12
Babies' Hospital	2	2	4
Hulme Dispensary	—	—	—
Gartside Street Dispensary	—	12	12
Hardman Street Dispensary	13	—	13
Asylums	5	—	5
Schools	—	4	4
Tuberculosis Staff	69	9	78
Naval and Military	5	3	8
Various Sources	40	19	59
Private Practitioners	496	61	557
Child Welfare Centres	—	—	—
Swinton House	—	—	—
Ear Hospital	—	—	—
Eye Hospital	—	—	—
Monsall Hospital	3	4	7
Total	947	303	1,250

176 tenants have allowed the removal of bedding, etc., for disinfection or destruction.

88,470 cardboard boxes have been prepared in the office and supplied to patients for use as sputum boxes in the home.

590 sputum bottles have been supplied for use outside the house.

14,900 visits have been made by the Enquiry Officers during the year.

51,771 letters were sent out.

674 notices warning against spitting on floors, etc., have been supplied to offices and workshops.

TABLE 7.

Sources of Primary Notification of Non-Pulmonary Cases for
the Years 1918 to 1938.

Source	1918- 1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Crumpsall Hospital	234	20	20	20	19	10	15	8	16	41	20
Withington Hospital	207	16	21	18	13	7	13	27	23	26	32
Booth Hall Hospital	521	28	64	63	59	35	38	21	39	48	42
Outside District Medical Officers	5	..	2	..	..	1	..	..	..	1	1
Royal Infirmary	1035	60	60	92	78	59	55	77	51	58	38
Ancoats Hospital	540	22	33	34	21	18	19	16	17	57	29
Skin Hospital	454	29	36	33	28	24	18	16	11	13	8
St. Mary's Hospital	139	6	8	10	..	1	7	9	6	6	7
Northern Hospital	105	3	2	10	11	2	3	8	12	..	1
Jewish Hospital	64	3	5	6	1	..	1	..	2	1	2
Pendlebury Hospital	81	10	30	26	15	13	12	11	13	17	9
Babies' Hospital	8	..	2	2	3	8	2	..	1	3	2
Hulme Dispensary	4	..	..	..	..	..	..	1	..	..	..
Gartside Street Dispensary..	471	21	23	15	20	9	9	5	12	8	12
Hardman Street Dispensary	180	16	20	9	1	..	..	..	..	..	..
Bowdon Hospital	7	1	..	..	..	..	..	..	..	..	..
Asylums	30	2	2	2	..	1	..	..	..	..	..
Schools	238	4	9	23	27	24	16	5	3	3	4
Tuberculosis Office Staff ..	135	20	13	10	18	20	14	10	14	24	9
Naval and Military	33	..	..	..	1	1	1	..	1	..	3
Various Sources	183	12	25	16	16	11	16	15	14	14	19
Private Practitioners	1607	102	89	96	70	69	74	76	64	53	61
Child Welfare Centres.. ..	..	..	2	..	1	..	..	2	..	..	..
Ear Hospital .. .. .	..	..	..	..	..	..	..	..	1	..	..
Eye Hospital .. .. .	..	..	..	..	..	..	..	..	1	..	..
Swinton House .. .. .	..	..	..	11	..	..	..	..	..	..	..
Monsall Hospital .. .. .	..	..	..	..	..	..	..	..	..	3	4
	6281	375	466	496	402	313	313	307	301	376	303

TABLE 8.

Number of New Cases of Pulmonary Tuberculosis
Notified during the Years 1900 to 1938.

Year		Poor-law Cases	Institutions, etc.	Private Practitioners	Total
(1)	1900*	578	455	540	1,573
	1901	625	373	341	1,339
	1902	667	305	303	1,275
	1903	556	550	251	1,357
	1904	512	440	250	1,202
	1905	527	588	291	1,406
	1906	565	510	304	1,379
	1907	634	646	310	1,590
(2)	1908	659	498	346	1,503
	1909	681	542	384	1,607
	1910	543	760	356	1,659
(3)	1911	517	897	423	1,837
(4)	1912	488	947	969	2,404
(5)	1913	345	717	1,350	2,412
	1914	483	877	1,304	2,664
	1915	279	740	1,194	2,213
	1916	322	817	1,410	2,549
	1917	470	716	1,061	2,247
	1918	268	563	1,015	1,846
	1919	208	538	845	1,591
	1920	206	629	672	1,507
	1921	257	632	722	1,611
	1922	233	567	656	1,456
	1923	239	546	659	1,444
	1924	223	555	731	1,509
	1925	262	496	746	1,504
	1926	220	422	765	1,407
	1927	241	441	756	1,438
	1928	253	361	824	1,438
	1929	201	382	802	1,385
	1930	201	377	709	1,287
		<i>Transferred Hospitals</i>			
	1931	206	362	717	1,285
	1932	202	228	657	1,087
	1933	205	213	663	1,081
	1934	242	197	634	1,073
	1935	218	202	586	1,006
	1936	208	192	575	975
	1937	233	275	547	1,055
	1938	249	202	496	947
Total		14,226	19,758	26,164	60,148

* This table does not include 425 cases notified in 1899.

- (1). Voluntary notification of Pulmonary Tuberculosis—Manchester scheme.
 (2). Compulsory notification (Tuberculosis Regulations) from Poor Law institutions.
 (3). Compulsory notification from voluntary institutions.
 (4). Compulsory notification of Pulmonary Tuberculosis by all practitioners
 (5). Compulsory notification of all forms of Tuberculosis.

TABLE 9.

Number of New Cases of Non-Pulmonary Tuberculosis
Notified during the Years 1913-1938.

Year	Total		Total
	Males	Females	
1913	759	714	1,473
1914	519	413	932
1915	422	415	837
1916	418	467	885
1917	433	449	882
1918	345	353	698
1919	206	228	434
1920	280	257	537
1921	295	281	576
1922	321	284	605
1923	350	380	730
1924	316	307	623
1925	322	300	622
1926	239	224	463
1927	277	226	503
1928	214	276	490
1929	204	171	375
1930	251	215	466
1931	259	237	496
1932	201	201	402
1933	154	159	313
1934	170	143	313
1935	146	161	307
1936	154	147	301
1937	184	192	376
1938	154	149	303
Total..	7,593	7,349	14,942

TABLE 10.
Tuberculosis (Non-Pulmonary).—Primary Cases Notified during 1938.—Age Groups and Site.

Location of Disease	AGE GROUPS												Totals									
	0—		5—		10—		15—		20—		25—		35—		45—		55—		65—			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females		
Brain:—Tumour	10	4	6	6	2	2	3	1	2	3	3	1	1	1	1	1	1	1	1	19	19	
Meninges	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hydrocephalus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glands:—Cervical	7	8	9	10	7	7	8	11	9	6	3	1	1	1	2	2	2	2	1	55	55	
Mesenteric	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Axillary	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Inguinal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Tuberculous Peritonitis	..	..	3	1	3	2	1	1	1	2	1	1	1	1	2	1	1	1	1	7	10
Tuberculosis of Abdomen	..	..	..	1	1	2	2	2	..	..	..	..	..	..	..	..	..	..	..	4	5
of Breast	2	2
of Intestines	1	2	2	2	2
Joints:—Spine	1	1	3	1	1	1	1	1	1	2	2	4	2	2	2	1	1	1	1	13	8	
Hip	2	..	2	3	1	1	1	1	..	1	1	..	..	..	..	..	..	..	..	8	6
Elbow	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Ankle	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Wrist	..	..	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	3	2
Shoulder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Knee	3	2	..	1	1	1	1	1	..	..	2	1	..	..	..	..	..	..	..	9	4
Bones:—Various	4	..	..	..	1	..	1	1	1	..	..	..	..	1	..	..	..	..	..	6	4
Tuberculosis of Skin	..	1	..	1	2	2	..	..	..	2	..	1	..	..	..	..	..	..	..	5	7
General Tuberculosis	4	1	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	7	2
Special Organs:—Ear	1	1
Bladder, etc.	1	1
Kidney	1	2	1	2	2	3	1	3	1	1	1	1	1	1	..	7	7
Testicle, etc.
Muscles, etc.
Rectum
Uterus
Unclassified	1	..	1	..	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	5	5
Totals	34	17	28	25	23	22	21	21	18	17	22	11	7	8	7	5	1	5	2	154	149	

TABLE 11.—Various Statistics Relating to the Notification of Tuberculosis.

	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1914 to 1924	1899 Sept. 1st to Dec. 31st 1913	Total
Cases Visited and Registered—																	
Males	716	818	703	738	836	804	828	975	1014	1058	1106	1173	1100	1232	17356	14170	44627
Females	561	630	586	584	598	622	723	806	806	809	919	866	872	937	13199	8854	32372
Totals	1277	1448	1289	1322	1434	1426	1551	1781	1820	1867	2025	2039	1972	2169	30555	23024	76999
Houses Disinfected—																	
1. By Corporation—																	
(a) With solution of chlorinated lime only . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15582	9015	24597
(b) With lime solution only . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	126	126
(c) By Esmarch's method and solution of chlorinated lime	2107	2180	2361	2608	2866	2952	2991	3224	3115	2934	2693	2083	1635	1332	11311	17232	29875
(d) † By fumigating lamp . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	128	..	..	33877
Totals	2107	2180	2361	2608	2866	2952	2991	3224	3115	2934	2693	2083	1635	1460	26893	26373	88475
2. By Tenants—																	
Esmarch's method of chlorinated lime, etc.	4473	4583	4864	5108	5614	5791	5802	6342	7032	7192	6868	7338	6967	6392	51114	36919	172399
Totals	6580	6763	7225	7716	8480	8743	8793	9566	10147	10126	9561	9421	8602	7852	78007	63292	260874
Specimens of Sputum examined—																	
Positive	649	683	769	846	1002	966	649	408	360	392	360	348	347	325	6173	6705	20982
Negative	3878	4060	4202	4809	4957	4734	3589	2236	2039	1698	1548	1573	1363	1415	17891	12176	72168
Totals	4527	4743	4971	5655	5959	5700	4238	2644	2399	2090	1908	1921	1710	1740	24064	18881	93150
Cases admitted to Hospital and Sanatoria	2204	2246	2239	2347	2368	2275	2038	2275	2033	1919	1948	2062	1844	2027	23628	22669	76122
Notified from Common Lodging houses	37	27	36	24	28	43	44	45	62	71	62	56	53	76	1453	3109	5226
Number of cases under observation	7140	7558	7951	8271	8650	9017	9441	9759	10060	10197	10494	10586	10680	10379	84049	33702 approx.	..

† Method commenced on 1st December, 1925.

TABLE 12.—Return showing the Work of the Clinic during the Year 1938.

Diagnosis	Pulmonary						Non-Pulmonary						Total			Grand Total	
	Adults			Children			Adults			Children			Adults	Children			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.					
													M.	F.	M.		F.
A.—New cases examined during the year (excluding contacts)—																	
(a) Definitely tuberculous	409	304	22	25	51	58	28	51	58	28	460	362	73	53	362	948	
(b) Diagnosis not completed . . . . .	..	..	..	..	..	..	..	..	..	..	55	41	7	9	41	112
(c) Non-tuberculous . . . . .	..	..	..	..	..	..	..	..	..	..	403	376	86	86	376	951
B.—Contacts examined during the year—																	
(a) Definitely tuberculous	38	32	4	5	4	2	4	4	2	4	42	34	8	9	34	93	
(b) Diagnosis not completed . . . . .	..	..	..	..	..	..	..	..	..	..	7	7	12	11	7	37
(c) Non-tuberculous . . . . .	..	..	..	..	..	..	..	..	..	..	328	443	446	416	443	1633
C.—Cases written off the Dispensary Register as—																	
(a) Recovered	77	55	16	11	37	26	37	50	26	37	114	81	66	48	81	309	
(b) Non-tuberculous . . . . .	..	..	..	..	..	..	..	..	..	..	775	871	545	518	871	2709
D.—Number of persons on Dispensary Register on December 31st—																	
(a) Definitely tuberculous	1921	1512	224	212	322	456	423	423	456	327	2243	1968	647	539	1968	5397	
(b) Diagnosis not completed . . . . .	..	..	..	..	..	..	..	..	..	..	62	48	19	20	48	149
Total number of cases of Tuberculosis who received <u>Treatment</u> from the Clinic																610	
Total number of attendances at the Clinic																20,812	

TABLE 13.

Insured Cases Applying for Treatment for the Years 1914-1938.

	Males	Females	Total
1914	730	321	1,051
1915	572	315	887
1916	747	316	1,063
1917	728	359	1,087
1918	642	261	903
1919	630	255	885
1920	645	250	895
1921	615	255	870
1922	543	265	808
1923	539	291	830
1924	597	371	968
1925	610	327	937
1926	562	368	930
1927	555	296	851
1928	612	372	984
1929	610	376	986
1930	551	352	903
1931	555	360	915
1932	451	323	774
1933	503	281	784
1934	471	284	755
1935	428	283	711
1936	483	312	795
1937	507	345	852
1938	466	269	735

Cases of discharged soldiers referred for treatment—151.

Number of patients who had so far recovered that no signs of active disease were found: Insured—272; Uninsured—261.

Grants of food were made in 3,087 instances to 436 families, and 10 grants of clothing were supplied to 8 patients in hospital and sanatoria to enable them to derive full benefit from treatment.

Special visits to the number of 15,621 have been paid by the Tuberculosis Nurses and 224 visits by the Clinical Nurse who attends to domiciliary patients requiring surgical dressings and nursing care.

TABLE 14.—Insured Cases Treated in 1938.

Residential	1,657
Tuberculosis Clinic	53
Domiciliary	1,936
Total	3,646

Analysis of Cases Treated.

TABLE 15.—Residential (Insured).

INSTITUTION	Total Cases Treated		Discharged from Institutions		Died (4)	* Residential Treatment discontinued in other cases (5)	Still under Residential Treatment on 1st Jan., 1939 (6)
	Males (1)	Females	Improved (2)	Without Improvement (3)			
	PULMONARY						
Baguley	384	214	136 71	47 31	33 32	4 2	164 78
Crossley	68	112	36 47	6 15	1 ..	2 2	23 48
Abergele	64	16	23 4	1 1	3 ..	2 2	35 9
Barrowmore	47	..	22 ..	5 ..	1 ..	1 ..	18 ..
Withington	411	154	190 88	86 18	98 33	.. 1	37 14
Crumpsall	38	12	.. ..	34 11	4 1	....	....
Manchester Royal Infirmary ..	7	10	6 10	.. ..	.. ..	.. ..	1 ..
Total Pulmonary	1019	518	633	255	206	16	427
	NON-PULMONARY						
Barrowmore	2	..	.. ..	.. ..	.. ..	1 ..	1 ..
Manchester Royal Infirmary ..	7	4	7 4	....	....	....	....
Skin Hospital	3	2	3 1	.. ..	.. ..	.. ..	.. 1
Ancoats Hospital	4	4	4 4	....	....	....	....
Shropshire Orthopædic Hospital	20	13	4 2	1 ..	3 ..	.. 1	12 10
Withington	22	16	11 9	1 4	6 ..	.. ..	4 3
Crumpsall	9	14	5 9	1 4	1 ..	.. ..	2 1
Total Non-Pulmonary	67	53	63	11	10	2	34
TOTAL—ALL FORMS	1086	571	696	266	216	18	461

* The figures in column (5) relate to cases as to the progress of which no definite report is available for various reasons—*e.g.*, the withdrawal from the Institution of the insured persons themselves before the expiration of the period for which they were nominated for the treatment.

TABLE 16.—Residential (Uninsured and Children under 15).

INSTITUTION	Total Cases Treated			Discharged from Institutions		Died (4)	* Residential Treatment discontinued in other cases (5)	Still under Residential Treatment on 1st Jan., 1939 (6)
	Males	Females	Children	Improved (2)	Without Improvement (3)			
		(1)						
			PULM	ONARY				
Baguley	78	101	..	32 34 ..	10 15 ..	9 6 ..	.. 2 ..	27 44 ..
Crossley	13	31	..	6 20 ..	3 5 ..	1	1	2 6 ..
Abergele	12	5	116	6 3 35	1 .. 2	1 .. 3	.. 1 ..	4 1 76
Barrowmore	10	..	..	6 .. ..	.. .. ..	1 .. ..	.. .. ..	3
Withington	270	227	..	126 125 ..	38 24 ..	73 56 ..	1	32 22 ..
Booth Hall .. .. .	..	..	124	.. .. 48	.. .. 2	.. .. 19	.. .. 38	.. .. 17
Crumpsall	29	16	..	2 1 ..	24 13 ..	3 2..	......	......
Manchester Royal Infirmary	1	2	..	.. 2 ..	1....	......	......	......
Total Pulmonary	413	382	240	446	138	174	43	234
			NON-PULMONARY					
Abergele .. .. .	..	..	163	.. .. 41	.. .. 1	.. .. 2	.. .. 1	.. .. 118
Manchester Royal Infirmary	3	4	..	2 4 ..	.. .. ..	1....	......	......
Skin Hospital .. .. .	..	4	..	.. 4..	......	......	......	......
Ancoats Hospital .. .. .	..	1	..	.. 1..	......	......	......	......
Shropshire Orthopædic Hospital	3	5	..	2 1 ..	.. .. ..	.. .. ..	.. .. ..	1 4 ..
Withington	15	14	..	5 8 ..	4 1 ..	1 2 ..	.. .. ..	5 3 ..
Booth Hall .. .. .	..	..	74	.. .. 16	.. .. 1	.. .. 14	.. .. 31	.. .. 12
Crumpsall	7	16	..	4 5 ..	2 6 ..	1 5..	......	......
Total Non-Pulmonary	28	44	237	93	15	26	32	143
Total—ALL FORMS .	441	426	477	539	153	200	75	377

* The figures in column (5) relate to cases of which no definite report is available for various reasons—e.g., the withdrawal from the Institution of the persons themselves before the expiration of the period for which they were nominated for the treatment.

The following table summarises the non-pulmonary cases treated at various Institutions :—

TABLE 18.

Tuberculosis of :—

Bones and Joints	242
Glands	70
Genito Urinary Tract	22
Abdomen	52
Skin—	
1. Lupus Vulgaris.. .. .	111
2. Toxi Tuberculids	2
3. Bazins Disease	7
4. Tuberculous Ulceration of Skin	19

TABLE 19.

Tables showing After History of Quiescent and Arrested Cases (Insured).

1928.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died
I.	M	34	15	14	5	M	10	4	3	3
	F	28	14	13	1	F	6	3	2	1
II.	M	27	11	10	6	M	7	3	2	2
	F	15	4	9	2	F	2	1	..	1
III.	M	12	8	3	1	M	3	1	1	1
	F	3	1	1	1	F	3	2	..	1
	M & F	119	53	50	16	M & F	31	14	8	9

Tables showing After History of Quiescent and
Arrested Cases (Insured)—continued
1929.

No Tubercle Bacilli found.

Tubercle Bacilli found.

Stage	Sex	Number of cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died
I.	M	34	15	13	6	M	9	4	1	4
	F	37	16	17	4	F	3	2	1	..
II.	M	24	12	7	5	M	9	3	3	3
	F	13	8	4	1	F	5	3	2	..
III.	M	9	5	3	1	M	5	1	2	2
	F	4	3	..	1	F	..	..	..	..
M & F		121	59	44	18	M & F	31	13	9	9

1930.

I.	M	81	38	26	17	M	24	13	6	5
	F	44	20	20	4	F	4	2	2	..
II.	M	44	19	13	12	M	24	7	6	11
	F	21	11	9	1	F	14	8	3	3
III.	M	15	7	2	6	M	4	3	1	..
	F	7	3	3	1	F	2	..	1	1
M & F		212	98	73	41	M & F	72	33	19	20

1931.

I.	M	78	35	22	21	M	25	17	7	1
	F	57	30	19	8	F	5	3	2	..
II.	M	48	21	15	12	M	29	14	5	10
	F	14	7	5	2	F	7	4	2	1
III.	M	9	5	2	2	M	5	4	..	1
	F	2	1	..	1	F	1	..	..	1
M & F		208	99	63	46	M & F	72	42	16	14

Tables showing After History of Quiescent and
Arrested Cases (Insured)—continued

1932.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died
I.	M	46	19	18	9	M	21	13	6	2
	F	53	23	24	6	F	16	9	7	..
II.	M	30	12	15	3	M	15	12	1	2
	F	22	15	5	2	F	9	6	2	1
III.	M	9	7	2	..	M	2	2	..	..
	F	4	1	1	2	F	3	2	..	1
	M & F	164	77	65	22	M & F	66	44	16	6

1933.

I.	M	35	22	5	8	M	10	5	2	3
	F	23	13	9	1	F	5	2	2	1
II.	M	22	15	4	3	M	15	10	2	3
	F	15	5	7	3	F	5	3	1	1
III.	M	4	3	..	1	M	4	2	1	1
	F	2	2	..	..	F	..	..	..	..
	M & F	101	60	25	16	M & F	39	22	8	9

1934.

I.	M	35	23	10	2	M	14	10	4	..
	F	28	19	9	..	F	3	2	..	1
II.	M	14	12	2	..	M	9	6	2	1
	F	18	12	4	2	F	3	3	..	..
III.	M	..	..	..	..	M	2	2	..	..
	F	1	1	..	..	F	..	..	..	..
	M & F	96	67	25	4	M & F	31	23	6	2

Tables showing After History of Quiescent and
Arrested Cases (Insured)—continued

1935.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1938	Lost sight of	Died
I.	M	57	45	7	5	M	20	16	3	1
	F	52	38	11	3	F	13	11	2	..
II.	M	39	33	4	2	M	22	14	5	3
	F	22	15	5	2	F	8	7	1	..
III.	M	1	1	..	..	M	4	2	1	1
	F	3	3	..	..	F	3	3	..	..
	M & F	174	135	27	12	M & F	70	53	12	5

1936.

I.	M	53	44	8	1	M	27	26	1	..
	F	51	37	10	4	F	19	18	1	..
II.	M	15	14	..	1	M	29	22	5	2
	F	24	21	3	..	F	11	9	2	..
III.	M	6	5	..	1	M	8	8	..	..
	F	4	3	..	1	F	2	2	..	..
	M & F	153	124	21	8	M & F	96	85	9	2

1937.

I.	M	40	38	1	1	M	19	14	5	..
	F	33	27	6	..	F	8	5	2	1
II.	M	20	15	4	1	M	25	23	..	2
	F	18	17	1	..	F	17	17	..	..
III.	M	2	2	..	..	M	4	4	..	..
	F	2	1	1	..	F	4	4	..	..
	M & F	115	100	13	2	M & F	77	67	7	3

Abergele, Baguley, and Crossley Sanatoria.

Conditions relative to patients treated in the above sanatoria during the last ten years are set forth in the following tables.

It should be noted that a number of observation cases are admitted to Baguley and are sent to the other sanatoria when found suitable for this form of care. Many of the advanced cases forming so large a proportion of the Baguley admissions improve markedly under treatment and become fit for transfer later to Abergele and Delamere.

The earlier the stage of the disease at which a patient can be given sanatorium treatment the greater the prospect of permanent benefit. Properly selected cases have their best chance of arrest in the shortest time by intelligently carried-out sanatorium treatment; moreover, they learn restraint, discipline, and an ordered way of life, which are essential for maintenance of health and for prevention of relapses.

Special attention is directed to the analysis of final results for the cases treated at Abergele. These figures have now become of value as we can give the after history of patients admitted since the extension of the institution by 210 beds for children in 1931. The response to treatment has been outstandingly good in both pulmonary and non-pulmonary cases, and there is every justification for confidence that the improvement made will be permanent.

TABLE 20.
Abergele Sanatorium.
Adult Males—Pulmonary.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) These are additional to the cases in Column 2 and are given to show the number of beds occupied
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	93	34	1	43	15	25
1930 ..	66	17	..	31	18	29
1931 ..	84	30	3	34	17	18
1932 ..	68	26	1	24	17	16
1933 ..	61	28	2	17	14	18
1934 ..	54	21	4	17	12	12
1935 ..	37	26	1	3	7	16
1936 ..	40	27	4	5	4	9
1937 ..	26	20	2	..	4	12
1938 ..	26	25	1	..	..	9
Total ..	555	254	19	174	108	164

TABLE 20—continued
Adult Females—Pulmonary.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) These are additional to the cases in Column 2 and are given to show the number of beds occupied
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	20	10	..	9	1	..
1930 ..	22	6	..	9	7	2
1931 ..	16	5	..	6	5	1
1932 ..	11	4	1	2		2
1933 ..	10	8	..	2	..	5
1934 ..	9	6	..	2	1	1
1935 ..	11	7	1	2	1	1
1936 ..	10	7	..	2	1	..
1937 ..	11	10	..	1	..	2
1938 ..	10	10	..	..	..	1
Total ..	130	73	2	35	20	15

Abergele Sanatorium.
Child Males—Pulmonary.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) These are additional to the cases in Column 2 and are given to show the number of beds occupied
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	..	..	..	..	..	..
1930 ..	..	..	..	..	..	..
1931 ..	23	14	..	3	6	..
1932 ..	20	14	..	1	5	..
1933 ..	28	19	..	..	9	..
1934 ..	16	13	..	2	1	..
1935 ..	21	17	1	..	3	1
1936 ..	16	12	..	..	4	1
1937 ..	19	18	..	..	1	3
1938 ..	20	20	..	..	..	1
Total ..	163	127	1	6	29	6

TABLE 20—continued
Child Females—Pulmonary.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) * These are additional to the cases in Column 2 and are given to show the number of beds occupied
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	..	..	..	..	..	..
1930 ..	..	..	..	..	..	..
1931 ..	24	12	1	4	7	..
1932 ..	20	17	2	1	..	1
1933 ..	23	13	4	2	4	..
1934 ..	16	11	1	1	3	2
1935 ..	22	16	2	2	2	1
1936 ..	24	16	5	1	2	2
1937 ..	22	17	4	..	1	..
1938 ..	17	17	..	..	..	..
Total ..	168	119	19	11	19	6

Abergele Sanatorium.

Child Males—Non-pulmonary.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) These are additional to the cases in Column 2 and are given to show the number of beds occupied
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	1	..	..	1	..	..
1930 ..	..	..	..	..	..	..
1931 ..	24	17	1	1	5	2
1932 ..	60	40	4	1	15	1
1933 ..	23	21	..	..	2	..
1934 ..	29	24	1	..	4	1
1935 ..	24	21	2	1	..	..
1936 ..	31	28	..	..	3	..
1937 ..	24	22	..	..	2	1
1938 ..	27	27	..	..	..	3
Total ..	243	200	8	4	31	8

TABLE 20—continued

Child Females—Non-pulmonary.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) These are additional to the cases in Column 2 and are given to show the number of beds occupied
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	..	..	..	..	..	..
1930 ..	1	1	..	..	..	..
1931 ..	24	20	..	2	2	..
1932 ..	36	25	2	1	8	..
1933 ..	20	15	..	2	3	..
1934 ..	1	12	..	..	3	1
1935 ..	16	13	..	1	2	1
1936 ..	28	22	2	1	3	1
1937 ..	24	23	1	..	..	..
1938 ..	14	14	..	..	..	3
Total ..	178	145	5	7	21	6

TABLE 21.

Baguley Sanatorium.

Males.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) <small>These are additional to the cases in Column 2 and are given to show the number of beds occupied</small>
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	355	68	128	134	25	83
1930 ..	297	47	117	118	15	83
1931 ..	264	75	90	83	16	87
1932 ..	263	77	85	87	14	81
1933 ..	285	102	79	96	8	67
1934 ..	297	108	94	84	11	96
1935 ..	250	97	55	78	20	118
1936 ..	235	116	52	51	16	89
1937 ..	264	175	35	37	17	91
1938 ..	183	154	18	9	7	76
Total ..	2,698	1,019	753	777	149	871

Females.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) <small>These are additional to the cases in Column 2 and are given to show the number of beds occupied</small>
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	207	44	85	64	14	59
1930 ..	182	32	82	68	..	27
1931 ..	146	40	53	49	4	28
1932 ..	157	51	54	43	9	21
1933 ..	162	64	43	52	3	33
1934 ..	184	76	38	55	15	56
1935 ..	177	77	30	55	15	31
1936 ..	144	74	28	38	4	39
1937 ..	148	88	33	19	8	27
1938 ..	148	117	12	14	5	41
Total ..	1,655	663	458	457	77	362

TABLE 22.
Crossley Sanatorium.

Males.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) <small>These are additional to the cases in Column 2 and are given to show the number of beds occupied</small>
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	97	40	..	50	7	53
1930 ..	88	48	..	33	7	35
1931 ..	84	36	..	32	16	23
1932 ..	38	16	..	14	8	26
1933 ..	52	24	1	23	4	22
1934 ..	43	25	..	12	6	12
1935 ..	72	47	1	11	13	14
1936 ..	38	26	..	4	8	15
1937 ..	35	31	1	3	..	11
1938 ..	48	47	1	..	..	8
Total ..	595	340	4	182	69	219

Females.

Year (1)	No. of new cases (2)	Position at the end of 1938				No. of Re-admissions (7) <small>These are additional to the cases in Column 2 and are given to show the number of beds occupied</small>
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1929 ..	139	57	..	52	30	22
1930 ..	137	69	2	42	24	41
1931 ..	136	66	1	48	21	49
1932 ..	135	76	..	39	20	54
1933 ..	130	51	3	38	38	37
1934 ..	95	63	2	21	9	32
1935 ..	98	59	2	19	18	32
1936 ..	92	66	..	18	8	30
1937 ..	85	68	..	10	7	23
1938 ..	61	56	..	2	3	23
Total ..	1,108	631	10	289	178	343

HOSPITALS ADMINISTRATION

including :—

HOSPITALS.

INSTITUTIONS.

SPECIAL ESTABLISHMENTS.

CONVALESCENT HOMES.

PUBLIC VACCINATION.

GENERAL HOSPITALS AND INSTITUTIONS.

General Statistics for the Year ended 31st December, 1938.

IN-PATIENTS	GENERAL HOSPITALS			SPECIAL ESTABLISHMENTS			INSTITUTIONS		TOTALS
	Crumpsall Hospital	Withington Hospital	Booth Hall Hospital	Rose Hill Convalescent Home	Langho Colony	Swinton Home	Park House (Mental Wards)	Withington Institution (Aged and Infirm Wards)	
1. Total number of admissions (including infants born in hospital)	15,349	14,895	6,149	480	75	44	706	389	38,087
‡2. Number of women confined in hospital	2,744	2,220	..	..	..	..	..	..	4,960
3. Number of live births ..	2,621	2,115	..	..	..	..	..	..	4,736
4. Number of still-births ..	147	110	..	..	..	..	..	..	257
5. Number of deaths among the newly-born (<i>i.e.</i> , under four weeks of age)*	78	76	..	..	..	..	..	..	154
6. Total number of deaths among children under one year (including those given under 5	78	80	215	..	..	..	..	..	373
7. Number of maternal deaths among women confined in hospital	4	2	..	..	..	..	..	..	6
8. Total number of deaths ..	1,538	1,685	378	..	10	4	168	162	3,945
9. Total number of discharges (including infants born in hospital)	13,937	13,142	5,755	505	58	29	571	224	34,221
10. Duration of stay of patients included in 8 and 9 above—									
(a) Four weeks or less ..	12,813	11,748	4,568	144	1	..	398	24	29,696
(b) Exceeding four but under thirteen weeks	2,200	2,481	1,285	248	7	..	154	90	6,465
(c) Exceeding thirteen weeks	462	598	280	113	60	33	187	272	2,005
11. Number of beds occupied—									
(a) Average during the year	1,167	985	403	82	636	124	648	505	4,550
(b) Highest	1,305 on 26-1-38	1,078 on 29-3-38	534 on 17-3-38	118 on 29-4-38	640 on 18-11-38	129 on 7-10-38	674 on 2-1-38	513 on 17-6-38	..
(c) Lowest	1,019 on 7-10-38	779 on 25-12-38	338 on 2-10-38	49 on 7-11-38	627 on 1-1-38	115 on 1-1-38	628 on 8-9-38	492 on 11-8-38	..
†12. Number of surgical operations under general anæsthetic (excluding dental operations)	1,209	1,243	1,593	..	..	..	..	..	4,045
13. Number of abdominal sections	679	774	221	..	..	..	..	..	1,674

* This figure relates only to children born in hospital.

‡ Relates to women discharged from or dying in hospital during the year.

† Including spinal anæsthesia.

**DETAILS OF
BED PROVISION AND STAFFING AT GENERAL HOSPITALS
AND INSTITUTIONS, 1938.**

	GENERAL HOSPITALS			SPECIAL ESTABLISHMENTS			INSTITUTIONS		TOTALS
	Crumpsall Hospital	Withington Hospital	Booth Hall Hospital	Rose Hill Convalescent Home	Langho Colony	Swinton Home	Park House (Mental Wards)	Withington Institution (Aged and Infirm Wards)	
1. Number of Resident Medical Staff	11	10	6	..	1	..	1	..	29
2. Number of visiting staff ..	18	23	18	1	..	1	..	..	61
3. Specialist services supplied* {	A, B, C, D, E, F, G, H, I, J, K, M, N	A, B, C, D, E, F, G, H, I, J, K, L, M, N	A, B, D, E, F, G, H, I, J, K, L, N	..	..	..	..	..	..
4. Number of									
(a) Trained nurses	132	126	50	4	2	3	1	5	323
(b) Probationer nurses	166	167	124	..	..	..	..	..	457
(c) Assistant nurses	87	9	..	9	..	..	..	..	105
(d) Male attendants	10	10	..	..	32	..	..	..	52
(e) Attendant nurses .. . . .	..	..	10	4	31	..	..	62	107
(f) Superintendents .. . . .	..	..	..	..	..	..	3	..	3
(g) Assistant Superintendents .. . . .	..	..	..	..	..	..	4	..	4
(h) Charge attendants .. . . .	..	..	..	..	..	2	10	..	12
(i) Mental nurses .. . . .	..	..	..	..	..	..	24	..	24
(j) Mental attendants .. . . .	..	..	..	..	..	21	43	..	64
(k) Instructresses .. . . .	..	..	..	..	..	..	2	..	2
(l) Senior nurses .. . . .	..	..	..	..	..	..	32	..	32
TOTALS	395	312	184	17	65	26	119	67	1,185
5. Total number of beds provided for sick and maternity cases at 31st December, 1938—									
(a) For men	631	492	..	..	303	..	356	281	2,063
(b) For women	719	673	..	..	339	..	‡350	326	2,407
(c) For children (under 16 years of age), excluding cots in maternity wards † ..	18	..	760	100	..	130	..	..	1,008
TOTALS	1,368	1,165	760	100	642	130	‡706	607	5,478

* Specialist services supplied—

A Surgeon

B Physician

C Gynæcologist and Obstetrician

D Ophthalmic Surgeon

E Orthopædic Surgeon

F Aurist and Laryngologist

G Children's Specialist

H Pathologist

I Dermatologist

J Radiologist

K Dentist

L Tuberculosis Specialist

M Radium Therapist

N Anæsthetist

† The inclusion of cots in maternity wards would increase the total number of beds in Crumpsall and Withington Hospitals by 82 and 91 respectively.

‡ Includes 40 beds for "sick" cases.

General Hospitals.

During the year 1938, 36,435 patients were "dismissed" from the three general hospitals of the Corporation. ("Dismissals" are discharges and deaths combined). The following table illustrates the growth of work which has occurred :—

TABLE I.

**Table showing Admissions, Discharges, Deaths, and Confinements
in the General Hospitals for the
Eight Years 1931—1938.**

Hospital	Year	Admissions	Discharges	Deaths	Women Confined in Hospital
Booth Hall	1931	4,993	4,436	487	—
	1932	5,347	4,913	492	—
	1933	4,919	4,602	342	—
	1934	4,809	4,548	331	—
	1935	5,285	4,988	374	—
	1936	5,540	5,274	400	—
	1937	6,509	6,122	439	—
	1938	6,149	5,755	378	—
Crumpsall	1931	11,003	9,863	1,123	1,676
	1932	11,474	10,479	1,136	2,038
	1933	12,040	11,140	1,229	1,794
	1934	11,731	10,514	1,055	1,863
	1935	11,671	10,158	1,251	1,845
	1936	12,551	11,117	1,389	2,115
	1937	15,330	13,516	1,733	2,424
	1938	15,349	13,937	1,538	2,744
Withington	1931	11,970	10,249	1,734	1,370
	1932	12,068	10,437	1,616	1,594
	1933	13,081	11,282	1,651	1,692
	1934	13,584	12,128	1,615	1,934
	1935	14,228	12,457	1,737	2,116
	1936	14,837	13,089	1,825	2,185
	1937	14,670	12,832	1,809	2,122
	1938	14,895	13,142	1,685	2,220
Totals	1931	27,966	24,548	3,344	3,046
	1932	28,889	25,829	3,244	3,632
	1933	30,040	27,024	3,222	3,486
	1934	30,124	27,190	3,001	3,797
	1935	31,184	27,603	3,362	3,961
	1936	32,928	29,480	3,614	4,300
	1937	36,579	32,470	3,981	4,546
	1938	36,393	32,834	3,601	4,964

TABLE II.
**“ Length of Stay ” of Patients in Municipal General
Hospitals during the Last Eight Years.**

YEAR	BOOTH HALL			CRUMPSALL			WITHINGTON		
	Under 4 weeks	4 to 13 weeks	Over 13 weeks	Under 4 weeks	4 to 13 weeks	Over 13 weeks	Under 4 weeks	4 to 13 weeks	Over 13 weeks
1931	2,883	1,508	532	8,020	2,305	663	8,268	2,616	1,099
1932	3,210	1,621	574	7,973	2,771	871	8,557	2,772	724
1933	3,027	1,426	491	9,658	1,855	856	9,183	2,954	796
1934	2,990	1,388	501	8,958	2,110	501	10,712	2,442	589
1935	3,562	1,366	434	8,719	2,251	439	10,920	2,632	642
1936	3,847	1,402	425	9,544	2,473	489	11,679	2,605	630
1937	4,733	1,520	308	12,333	2,462	454	11,684	2,423	534
1938	4,568	1,285	280	12,813	2,200	462	11,748	2,481	598

Average Duration of Stay.

The average duration of stay in hospital for all cases “ dismissed ” in 1938 was 26·82 days, as compared with 28·45 days in 1937, and 31·54 days in 1936. From Table III. below, it will be seen that at each of the three hospitals the average stay in 1938 was shorter than in the previous year.

TABLE III.

Hospital	Average Duration of Stay of Patients Discharged from or Dying in the Three General Hospitals			
	1935—Days	1936—Days	1937—Days	1938—Days
Booth Hall	24·23	32·31	28·12	25·41
Crumpsall	31·22	34·91	30·32	28·03
Withington	32·30	28·41	26·65	26·15
All Three Hospitals	30·51	31·54	28·45	26·82

These figures give proof of the increasing volume of acute work dealt with, as there are no significant variations in the number or length of stay of chronic cases.

“ Patient-Days.”

The total number of patient-days represented by the “ dismissals ” of 1938 was 977,360, a decrease of 59,690 as compared with 1937. It will be appreciated that this decrease confirms the decrease in the average length of stay. The increases and decreases in individual categories are shown in Table IV. below :—

TABLE IV.
Classification of Disease Groups according to Patient-Days of Discharges and Deaths in General Hospitals, 1937 and 1938.

DISEASE GROUP	PATIENT-DAYS		
	1938	1937	+ or —
*Healthy	129,624	128,230	+ 1,394
†Infectious disease	111,792	99,395	+ 12,397
Diseases of digestive system	93,946	108,290	— 14,344
Diseases of the circulatory system	86,809	88,798	— 1,989
Diseases of the respiratory system	85,657	121,645	— 35,988
Diseases of nervous system	81,831	92,004	— 10,173
Old age, senility, and senile decay	80,717	67,749	+ 12,968
‡Violence	58,148	55,871	+ 2,277
Diseases of the skin	53,611	68,794	— 15,183
Rheumatism, etc.	53,589	55,602	— 2,013
Diseases of genito-urinary system	48,273	49,682	— 1,409
Cancer and other tumours	38,715	38,656	+ 59
Diseases of pregnancy, etc.	19,396	18,407	+ 989
Diseases of bones, etc.	15,405	16,853	— 1,448
Ill-defined diseases	6,594	11,443	— 4,849
Diseases of early infancy	6,351	6,268	+ 83
Diseases of blood, etc.	5,177	5,009	+ 168
Congenital malformations	1,510	3,903	— 2,393
Chronic poisoning	183	366	— 183
Convalescence	32	85	— 53
TOTALS	977,360	1,037,050	— 59,690

* Including mothers and infants discharged from maternity wards.

† Including tuberculosis patients.

‡ Including accidents associated with fracture.

In the absence of comparable figures over a long period, no comment is offered on the tables given above.

TABLE V.

CLASSIFICATION (BY DISEASE GROUPS) OF DAYS OF MAINTENANCE OF PATIENTS
DISCHARGED FROM OR DYING IN THE GENERAL HOSPITALS, 1938.

DISEASE GROUP	BOOTH HALL		CRUMPSALL		WITHINGTON		TOTALS	
	Total Days	Average Stay	Total Days	Average Stay	Total Days	Average Stay	Total Days	Average Stay
1. †Infectious Disease	29,548	49.00	12,807	32.34	69,437	67.02	111,792	54.93
2. Cancer and other Tumours	65	21.43	18,914	43.58	19,736	43.38	38,715	43.40
3. Rheumatism, Diseases of Nutrition, etc.	16,785	61.71	17,363	34.31	19,441	33.75	53,589	39.58
4. Diseases of Blood and Blood-forming Organs	301	16.72	2,216	35.17	2,660	40.30	5,177	35.22
5. Chronic Poisoning	—	—	47	2.61	136	10.46	183	5.90
6. Diseases of Nervous System and Sense Organs	11,062	29.98	41,782	52.69	28,987	39.98	81,831	43.37
7. Diseases of Circulatory System	5,276	38.51	41,426	41.97	40,107	45.68	86,809	43.36
8. Diseases of Respiratory System	26,635	24.19	31,278	27.61	27,744	24.02	85,657	25.28
9. Diseases of Digestive System	27,216	14.84	30,433	20.40	36,297	21.54	93,946	18.75
10. Non-Venereal Diseases of Genito-Urinary System	3,224	26.00	23,260	24.33	21,789	22.70	48,273	23.66
11. Diseases of Pregnancy, Childbirth, and the Puerperal State	—	—	10,376	12.92	9,020	9.46	19,396	11.04
12. Diseases of Skin	8,971	13.00	21,882	30.78	22,758	32.37	53,611	25.48
13. Non-Tuberculous Diseases of Bones and Organs of Locomotion	4,576	67.29	7,074	52.79	3,755	35.42	15,405	50.02
14. Congenital Malformations	1,339	37.19	58	6.44	113	8.07	1,510	25.59
15. Diseases of Early Infancy	4,012	29.72	1,608	13.29	731	7.61	6,351	18.04
16. Old Age, Senility, and Senile Decay	—	—	73,811	156.05	6,906	35.78	80,717	121.01
17. †Violence	13,700	27.34	25,748	31.06	18,700	24.57	58,148	27.81
18. Ill-defined Diseases	2,141	16.47	3,562	16.12	891	15.91	6,594	16.20
19. Convalescence	32	1.33	—	—	—	—	32	1.33
20. *Healthy	981	11.41	70,165	13.00	58,478	13.31	129,624	13.12
Totals	155,864	25.41	433,810	28.03	387,686	26.15	977,360	26.82

* Including mothers and infants discharged from Maternity Wards.

† Including tuberculosis patients.

‡ Including accidents associated with fracture.

Table VI. below is extracted from Table V. to show, in descending order, the average stay in hospital of the various disease groups, and last year's figures have been included for comparison.

TABLE VI.

**Classification of Disease Groups by Average duration of Stay
(Dismissals from General Hospitals, 1935, 1936, 1937, and 1938).**

Disease Group	Average Stay in Hospital			
	1935	1936	1937	1938
	Days	Days	Days	Days
Old age, senility, and senile decay	76.77	132.67	120.98	121.01
*Infectious disease.. .. .	57.69	53.93	45.57	54.93
Diseases of bones, etc.	83.74	57.04	59.97	50.02
Cancer and other tumours	47.80	42.82	44.03	43.40
Diseases of nervous system	46.97	60.58	48.24	43.37
Diseases of circulatory system	44.13	53.29	41.53	43.36
Rheumatism, etc.	52.39	46.46	40.26	39.58
Diseases of blood.. . . .	51.95	47.34	36.56	35.22
†Violence	29.53	30.54	26.45	27.81
Congenital malformations	59.05	39.83	60.98	25.59
Diseases of skin	32.27	32.69	33.22	25.48
Diseases of respiratory system	30.34	33.63	32.98	25.28
Diseases of genito-urinary system	33.10	30.18	25.94	23.66
Diseases of digestive system	18.80	18.93	20.35	18.75
Diseases of early infancy	28.62	28.00	21.17	18.04
Ill-defined diseases	20.96	20.22	21.43	16.20
‡Healthy	14.18	13.71	13.91	13.12
Diseases of pregnancy, etc.	18.89	12.52	10.93	11.04
Chronic poisoning	11.47	7.72	7.18	5.90
Convalescence	48.24	3.95	2.43	1.33
Average Stay—All Cases	30.51 days	31.54 days	28.45 days	26.82 days

* Including tuberculosis patients.

† Including accidents associated with fracture.

‡ Including mothers and infants discharged from maternity wards.

Table VII., showing allocation of "dismissals" to the various wards of the city, is capable of comparison with last year's figures because the element of duration of stay does not enter into it. The vast majority of patients enter and leave hospital within the same calendar year, and the table therefore gives a fairly good picture of the distribution of hospitalised sickness throughout the city. Even so, it relates only to the municipal hospitals. A development of the system to include the voluntary hospitals would complete the picture, and it is appropriate to mention at this point that one of the matters upon which the aid of the Manchester Joint Hospitals Advisory Board will be sought in the not distant future is the possibility of a standardised recording system for all hospital units serving the population of Manchester.

Dealing with Table VII. itself, it may be noted that of the 36 wards into which the city is divided, 15 have increased their calls on the hospital service, while 19 have sent fewer patients than they did last year. The number of patients relating to two of the city wards coincided with the previous year.

TABLE VII.

Analysis of Patients Discharged from or Dying in the
General Hospitals in 1938, according to Wards of the City.

City Ward	Estimated Population	TOTALS			TOTALS	Rate per 1,000 of Population
		Booth Hall	Crumpsall	Withington		
Wythenshawe	34,512	306	9	1,149	1,464	42.42
New Cross	22,442	267	1,126	68	1,461	65.10
Bradford	27,940	277	1,045	56	1,378	49.32
Ardwick	22,192	318	55	928	1,301	58.62
St. Luke's	25,280	262	33	986	1,281	50.67
St. George's	24,028	261	28	972	1,261	52.48
All Saints	20,799	267	28	846	1,141	54.86
Withington	48,864	143	14	983	1,140	23.33
Medlock Street	21,915	242	17	787	1,046	47.73
Cheetham	23,350	172	787	45	1,004	43.00
Longsight	22,722	167	36	729	932	41.02
Miles Platting	20,422	231	673	25	929	45.49
Moston	25,155	191	658	78	927	36.85
Chorlton-cum-Hardy	45,503	105	15	796	916	20.13
Blackley	22,470	229	655	27	911	40.54
Moss Side East	18,400	176	23	710	909	49.40
Openshaw	21,292	201	619	44	864	40.58
Beswick	25,948	175	532	118	825	31.79
Newton Heath	21,526	155	641	26	822	38.19
St. Michael's	17,221	149	631	27	807	46.86
Harpurhey	19,788	137	614	33	784	39.62
Collyhurst	16,097	148	607	26	781	48.52
Collegiate Church	14,766	123	603	47	773	52.35
Rusholme	21,662	89	13	644	746	34.44
Gorton South	30,363	178	440	115	733	24.14
Moss Side West	18,818	118	12	595	725	38.52
Didsbury	26,838	87	5	597	689	25.67
Crumpsall	16,173	118	525	27	670	41.43
Levenshulme	19,078	107	13	516	636	33.34
St. Mark's	20,869	171	311	148	630	30.19
Gorton North	20,372	137	409	50	596	29.26
St. John's	4,246	48	161	17	226	53.23
Oxford	621	14	77	20	111	178.73
St. Clement's	5,139	16	26	1	43	8.37
Exchange	289	2	9	7	18	62.28
St. Ann's	218	..	7	1	8	36.70
Outside the City	—	230	851	231	1,312	—
No settled abode	—	5	133	39	177	—
*Others	—	111	3,034	2,313	5,458	—

* "Others" includes :—

(a) Births (totalling 4,736).

(b) Staff cases.

(c) Cases in which the patient's address has not been obtainable.

TABLE VIII.

Showing the Numbers of "Fracture" Cases Discharged from or Dying in the City General Hospitals during the Years 1936, 1937, and 1938.

Length of Stay in Hospital	Booth Hall			Crumpsall			Withington		
	1936	1937	1938	1936	1937	1938	1936	1937	1938
Under 28 days	54	54	40	189	203	197	243	249	239
29—52 days.. .. .	31	38	29	52	59	75	63	71	54
Over 52 days	44	31	31	56	75	89	86	58	71
Total	129	123	100	297	337	361	392	378	364
Patients admitted from voluntary hospitals (included above)	60	51	42	91	117	133	151	130	101

Age-Group Tables.

Tables XI., XII., XIII., and XIV., on pages 116 to 122, show the age distribution of patients. The tables show the figures for disease groups only. Full information of each specified disease is kept in the departmental records, and is available for detailed investigations as required.

Recovery of Costs of Hospital Maintenance.

During the financial year ended March 31st, 1938, the amounts recovered under this heading were as follows:—

From	Booth Hall	Crumpsall	Langho	Rose Hill	Withington
	£	£	£	£	£
Paying patients at fixed weekly charges	152	2,686	Nil	Nil	5,935
Patients' relatives ac- cording to means ..	2,037	15,800	945	138	14,793

Grand total £42,486

**Report of Dr. G. Stewart Smith, Director of Pathological Services
for the Manchester Municipal General Hospitals.**

Dr. G. D. Dawson retired from the Directorship of the Pathological Services in June, 1938, on account of ill-health, and Dr. G. Stewart Smith, Pathologist to Withington Hospital, was appointed to succeed him. Dr. T. H. Shaw, Assistant Pathologist at the Crumpsall Laboratory, started work in the laboratory at Withington Hospital in October, 1938, and Dr. C. H. Adderley, who was appointed as Assistant Pathologist to work at the Crumpsall Laboratory, took up duty in December, 1938.

It will be seen from the tabular summary that the work of the Pathological Services has much increased during the year 1938. The amount of work done at the central laboratory at Crumpsall, for Crumpsall and Booth Hall Hospitals only, has practically reached the peak figure of 43,000 in 1937, when all the work for Withington, Crumpsall, and Booth Hall was done at the Crumpsall Laboratory.

Since the beginning of October, 1938, the visiting physicians and the medical staff of Crumpsall Hospital, with the collaboration of the laboratory, have been conducting an investigation into lobar pneumonia with special reference to the high mortality and the possible beneficial effects of some recent therapeutic measures. The investigation necessitates the full typing of the pneumococcus from the sputum in each case, repeated blood cultures, leucocyte counts, and estimations of the bilirubin content of the blood and some of the increase in the numbers of these examinations is due to this cause. This investigation is being continued.

The Withington Laboratory has had its first full year's work, and the record of examinations made proves that it has provided a service of wider scope than was previously possible while the expedition with which the work can be carried out is a valuable asset to the hospital.

The number of post-mortem examinations at Crumpsall and Withington has increased during the year, due to the greater facilities which the pathologists have had following the reorganisation of the Pathological Services.

EXAMINATIONS MADE AT THE PATHOLOGICAL LABORATORIES DURING THE YEAR ENDED 31st DECEMBER, 1938.

TYPE OF EXAMINATION	NUMBER OF EXAMINATIONS MADE			TOTAL
	At Crumpsall Laboratory for		At Withington Laboratory (for Withington only)	
	Crumpsall Hospital	Booth Hall Hospital		
Swabs—				
Diphtheria tests	310	14,069	162	14,541
Hæmolytic streptococci	157	—	—	157
Inoculations	—	77	—	77
Sputum—				
Tubercle bacilli	4,658	195	4,718	9,571
Pneumococcus typing	95	9	51	155
Miscellaneous (including concentration tests, organisms, etc.)	136	32	39	207
Blood—				
Counts	1,969	372	1,540	3,881
Reticulocytes	9	3	—	12
Sugar	2,425	100	4,798	7,323
Urea	1,088	116	1,129	2,333
Culture	199	56	70	325
Agglutination	55	12	40	107
Grouping	150	36	160	346
Calcium	8	17	12	37
Bleeding time	8	25	10	43
Coagulation time	8	25	10	43
Van den Bergh	119	12	38	169
Miscellaneous (including sedimentation rate, red cell fragility test, etc.)	50	48	37	135
Smears—				
Gonococci	817	248	86	1,151
Urine—				
Microscopical examination	2,599	371	1,335	4,305
Cultural examination	1,949	355	1,237	3,541
Chemical examination	335	22	355	712
Specific substance	116	10	—	126
Miscellaneous (including phenol red tests, ascorbic acid, etc.)	96	5	149	250
Fæces—				
Microscopical examination	50	18	39	107
Cultural examination	135	217	125	477
Chemical examination	452	20	77	549
C.S. Fluid—				
Microscopical examination	243	189	160	592
Cultural examination	7	38	14	59
Chemical examination	217	142	149	508
Lange tests	113	6	18	137
Pus—				
Microscopical examinations	227	161	188	576
Cultural examinations	251	314	233	798
Effusions—				
Microscopical examinations	144	50	158	352
Cultural examinations	62	31	142	235
Guinea pig inoculations	36	10	—	46
Friedman tests	83	2	—	85
Histological preparations	1,198	79	1,472	2,749
Post-mortem examinations	172	33	251	456
Fractional gastric analysis	295	5	233	533
Vaccines	46	23	21	90
Basal metabolic rates	37	—	62	99
Miscellaneous examinations (including smears— Tr. pallidum, Tr. vaginalis, etc.)	22	32	27	81
Total number of examinations carried forward	21,146	17,585	19,345	58,076

In addition, the following examinations were carried out:—

Rose Hill: Swabs—Diphtheria tests	381
—Hæmolytic streptococci	199
—Diphtheria virulence tests	5
Fæces—Examination	2
Monsall Hospital: Friedman tests	11
Withington Hospital: Miscellaneous examinations (including pleural fluid— inoculation, sputum—inoculation, culture, urine—pneumococcus, blood— uric acid, pus—cultural examination, etc.)	75
Friedman tests	116
Swinton Home: Swabs—Diphtheria tests	22
—Hæmolytic streptococci	6

Total number of examinations 58,893

The following figures show how the volume of pathological work has increased during the past eight years :—

Year ending December 31st	Number of Pathological Examinations
1931	21,611
1932	28,393
1933	29,611
1934	31,623
1935	37,654
1936	42,958
1937	47,460
1938	58,893

CANCER.

Cancer Cases "Dismissed" from Manchester Municipal General Hospitals during the Years 1934, 1935, 1936, 1937, and 1938.

TABLE B.

Numbers dealt with.

	Discharged					Died					Totals					Totals for 5 years
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	
BOOTH HALL..	1	1	1	..	..	2	1	..	..	..	3	2	1	..	..	6
CRUMPSALL ..	124	110	177	190	217	151	189	198	244	197	275	299	375	434	414	1,797
WITHINGTON ..	209	162	187	183	218	232	263	265	210	220	441	425	452	393	438	2,149
Totals ..	334	273	365	373	435	385	453	463	454	417	719	726	828	827	852	3,952

TABLE D.

Duration of Stay in Hospital—(Days).

	1934	1935	1936	1937	1938	Average Stay (all Cases)				
						1934	1935	1936	1937	1938
BOOTH HALL.. .. .	60	95	11	—	—	20.0	47.5	11.0	—	—
CRUMPSALL	24098	18606	15809	19918	18572	87.63	62.23	42.15	45.39	44.86
WITHINGTON	38262	30964	18510	18706	19236	86.76	72.86	40.95	47.59	43.92
Totals	62420	49665	34330	38624	37808	86.81	68.40	41.46	46.70	44.37

TABLE A.
Deaths from Cancer for the Year 1938 Classified in Age Groups and according to Sites—Male and Female.

CANCER	All Ages			0—1			1—5			5—10			10—15			15—20			20—25			25—35			35—45			45—55			55—65			65—75			75—85			85—			
	Total	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.							
Buccal Cavity	88	76	12	2	2	..	3	3	..	7	5	2	22	18	4	38	33	5	14	13	1	2	2	..	
Digestive organs, Oesophagus, Peritoneum..	647	315	332	7	3	4	34	15	19	78	30	48	168	87	81	243	128	115	109	51	58	8	1	7	
Respiratory	171	136	35	1	..	1	2	2	..	10	9	1	29	25	4	75	60	15	46	33	13	7	6	1	1	1	..	
Male and Female Genital Organs.. .. .	176	56	120	1	..	1	2	..	2	18	4	14	40	6	34	53	13	40	48	21	27	13	12	1	1	..	1	
Breast	131	..	131	4	..	4	17	..	17	24	..	24	42	..	42	25	..	25	13	..	13	6	..	6	
Skin	9	3	6	1	1	..	1	..	1	2	1	1	5	1	4
Others or unspecified	64	24	40	1	..	1	2	1	1	3	1	2	13	6	7	24	10	14	12	2	10	7	3	4	2	1	1	
Totals	1286	610	676	1	..	1	2	..	2	19	8	11	86	33	53	192	72	120	384	188	196	414	218	196	168	86	82	20	5	15	

TABLE C.
CANCER.

Classification according to Site—Discharges and Deaths.

	BOOTH HALL										CRUMPSALL										WITHINGTON										TOTALS										Totals for 5 years	
	1934		1935		1936		1937		1938		1934		1935		1936		1937		1938		1934		1935		1936		1937		1938		1934		1935		1936		1937		1938		Dis.	Died
	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died	Dis.	Died				
CANCER OF:—																																										
Lip, Mouth, and Pharynx	16	13	13	17	12	15	12	22	8	15	10	21	7	29	17	18	17	19	14	23	26	34	20	46	29	33	29	41	22	38	126	192										
Larynx	1	6	2	7	1	5	5	9	4	8	1	10	1	5	2	3	4	4	2	4	2	16	3	12	3	8	9	13	6	12	23	61										
Thorax (bronchi, lungs, mediastinum, pleura, pericardium)	7	17	6	21	10	21	17	30	36	27	10	19	10	41	7	33	16	32	16	24	17	37	16	62	17	54	33	62	52	51	135	266										
Oesophagus	7	8	2	10	9	9	2	13	5	6	8	11	5	19	5	16	8	10	4	9	15	20	7	29	14	25	10	23	9	15	55	112										
Stomach	17	23	9	35	19	42	28	38	22	36	31	47	31	46	26	47	25	27	24	30	48	70	40	81	45	89	53	65	46	66	232	371										
Intestines (anus, appendix, caecum, caput coli, colon, duodenum, ileum, jejunum, rectum, sigmoid, etc.)	31	37	27	32	35	36	37	49	58	44	47	40	36	41	36	62	39	45	39	37	78	77	63	73	71	98	76	94	97	81	386	422										
Pancreas	4	3	4	2	7	1	2	1	4	2	3	3	1	1	2	1	5	3	9	2	7	6	5	3	9	2	7	4	13	17	41											
Gall bladder and liver	1	11	2	16	4	13	12	28	10	15	3	10	2	10	7	8	5	12	6	19	4	21	4	26	11	21	17	40	16	34	52	142										
Peritoneum	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	2	2	1	8	5										
Respiratory organs	2	2	4	1	2	2	2	2	2	2	4	1	3	1	3	1	3	1	1	2	4	2	3	7	2	2	3	1	1	14	13											
Uterus	7	1	13	14	9	5	14	9	23	5	28	22	16	17	24	15	21	7	37	14	35	23	29	31	33	20	35	16	60	19	192	109										
Other female genital organs	9	7	10	9	29	14	19	13	12	10	26	9	13	19	9	13	14	14	35	13	35	16	23	28	39	28	33	27	47	23	177	122										
Breast	15	10	11	6	16	12	12	16	14	11	19	18	21	15	31	24	23	11	22	19	34	28	32	21	47	36	35	27	36	30	184	142										
Male genito-urinary organs	4	5	3	3	14	2	12	6	16	8	6	8	3	13	10	13	6	8	4	8	10	13	6	16	24	15	18	14	20	16	97	75										
Skin	4	2	1	2	5	2	1	2	7	2	2	2	2	3	3	1	1	3	1	11	2	2	4	2	6	2	4	3	27	9												
Other or unspecified organs	5	7	6	13	11	13	12	7	5	6	8	9	12	6	5	9	2	11	8	8	13	16	19	20	16	22	14	18	13	14	75	90										
Totals	1	2	1	1	1	124	151	110	189	177	198	190	244	217	197	209	232	162	263	187	265	183	210	218	220	334	385	273	453	365	463	373	454	435	417	1880	2172					
	3		2		1		275		299		375		434		414		441		425		452		393		438		719		726		828		827		852		3952					

TABLE E.

CANCER.

Analysis by Age Group—Discharges and Deaths.

	BOOTH HALL										CRUMPSALL										WITHINGTON										TOTALS														
	Discharged					Died					Discharged					Died					Discharged					Died					Discharged					Died									
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938
0—5	1	1	1	1	1	1	1
6—10	1	1	1	1	1	1
11—15	1	1
16—25	3	2	2	1	1	..	2	3	2	1	1	1	..	1	3	..	2	3	5	3	3	2	..	1	4
26—40	8	6	12	21	13	7	11	12	12	8	28	11	11	18	15	8	12	12	13	14	36	17	23	39	28	15	23	24	25	22
41—50	26	20	38	25	43	18	19	19	28	19	49	24	35	37	60	41	37	42	24	27	75	44	73	62	103	59	56	61	52	46
51—60	1	36	28	48	54	58	33	41	43	59	52	43	52	59	49	55	68	73	78	49	52	79	80	107	103	113	102	114	121	108	104
61—70	39	39	55	62	75	60	82	68	89	68	56	52	51	53	60	78	88	85	78	83	95	91	106	115	135	138	170	153	167	151
71—80	13	17	20	22	20	31	32	49	50	42	28	19	26	23	23	33	50	40	40	33	41	36	46	45	43	64	82	89	90	75
81+	2	..	1	4	6	1	4	7	5	7	3	1	3	2	4	3	3	6	3	11	5	1	4	6	10	4	7	13	8	18
Totals	1	1	1	2	1	124	110	177	190	217	151	189	198	244	197	209	162	187	183	218	232	263	265	210	220	334	273	365	373	435	385	453	463	454	417

TABLE F.
CANCER.
Analysis by Sex.

	BOOTH HALL					CRUMPSALL					WITHINGTON					TOTALS				
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938
	MALES	2	1	1	170	174	203	234	226	191	213	207	199	180	363	388	411	433	406
FEMALES	1	1	..	..	..	105	125	172	200	188	250	212	245	194	258	356	338	417	394	446
Totals	3	2	1	..	..	275	299	375	434	414	441	425	452	393	438	719	726	828	827	852

Totals for 5 years—Males, 2,001. Females, 1,951. Total, 3,952.

TABLE G.
CANCER.
Analysis by Source of Admission.

	BOOTH HALL					CRUMPSALL					WITHINGTON					TOTALS		Totals for 5 years
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	
	Accident Ward	1	
D.M.O. ....	..	..	..	..	..	119	133	159	103	62	..	87	57	33	21	243	220	898
General Practitioner	2	2	..	..	..	82	109	152	263	277	193	269	321	301	334	277	380	2305
Emergency .. .. .	..	..	..	..	..	3	3	6	6	4	35	11	14	12	8	38	14	102
Vol. Hospital ..	1	..	1	..	..	38	29	26	38	38	37	48	47	42	58	76	77	403
City Institutions..	..	..	..	..	..	31	22	22	16	18	10	8	6	2	6	41	30	141
City Hospitals ..	..	..	..	..	..	2	2	5	1	5	3	1	2	1	8	5	3	30
Birth .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
M. & C. W. Dept.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Staff Case .. .. .	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	1	3
Other or not stated	..	..	..	..	..	..	..	5	5	9	39	..	4	2	3	39	..	67
Totals	3	2	1	..	..	275	299	375	434	414	441	425	452	393	438	719	726	3952

TABLE H.
CANCER.

Cases seen by Radium Therapist.

	BOOTH HALL	CRUMPSALL	WITHINGTON	TOTALS
1934	—	65	52	117
1935	—	63	56	119
1936	—	77	58	135
1937	—	78	40	118
1938	—	49	56	105
Totals ..	—	332	262	594 = 15·03% of all cases.

Analysis of Discharges.

Discharged to	BOOTH HALL					CRUMPSALL					WITHINGTON					Totals for 5 years					
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938						
	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS						
Own Home . . .	1	1	..	..	..	103	101	158	173	191	189	138	164	167	188	293	240	322	340	379	1574
City Institution ..	..	..	..	..	..	16	7	6	4	9	8	6	12	6	6	24	13	18	10	15	80
City Hospital ..	..	..	1	..	..	2	..	3	1	7	5	5	4	3	2	7	5	8	4	9	33
Voluntary Hospital	..	..	..	..	..	3	1	..	..	..	7	3	..	..	..	10	4	..	..	..	14
Convalescent Home	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Staff case—to duty	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Died	2	1	..	..	..	151	189	198	244	197	232	263	265	210	220	385	453	463	454	417	2172
Indiscipline ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Absconded ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Hospital or Institution ..	..	..	..	..	..	..	1	10	12	10	..	10	7	7	22	..	11	17	19	32	79
Totals	3	2	1	..	..	275	299	375	434	414	441	425	452	393	438	719	726	828	827	852	3952
Against advice ..	..	..	..	..	..	16	3	33	15	21	49	38	34	38	16	65	41	67	53	37	263
(cases included in above table)																					

TABLE K.
CANCER.
Analysis of Patients' Condition on Discharge.

CONDITION	BOOTH HALL					CRUMPSALL					WITHINGTON					Totals for 5 years					
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938						
	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS						
Improved*	1	1	..	..	..	60	41	79	97	97	151	95	105	109	120	212	137	184	206	217	1056
No change ..	..	..	1	..	..	58	63	89	82	100	55	65	67	61	89	113	128	157	143	189	730
Worse . . . . .	..	..	..	..	..	6	6	9	8	20	3	2	15	7	9	9	8	24	15	29	85
Totals	1	1	1	..	..	124	110	177	187	217	209	162	187	177	218	334	273	365	364	435	1871

* "Improved" includes cases which are cured but which cannot be definitely classified as "cured" in the absence of a follow-up system which would enable the classification to be confirmed.

TABLE IX.

CLASSIFICATION (ACCORDING TO DISEASES) OF PERSONS WHO WERE DISCHARGED FROM, OR WHO DIED IN THE MUNICIPAL GENERAL HOSPITALS DURING THE YEAR ENDED DECEMBER 31st, 1938.

Disease Group	Disease	Booth Hall Hospital		Crumpsall Hospital		Withington Hospital		Totals
		Children under 16	Men and Women	Children under 16	Men and Women	Children under 16	Men and Women	
		Disch.	Died	Disch.	Died	Disch.	Died	
INFECTIOUS DISEASE								
	Enteric Fever							3
	Smallpox							271
	Measles	238		1				13
	Scarlet Fever	8	1					56
	Whooping Cough	55						26
	Diphtheria	15	2			4		59
	Influenza	2		1		28		3
	Influenzal Pneumonia	1				1		13
	Dysentery	5				2		46
	Erysipelas	9				15		9
	Poliomyelitis	6	1					1
	Acute Lethargic Encephalitis							26
	Cerebro-spinal Fever	20				2		1
	Anthrax							1
	Tetanus							1
	Tuberculosis—							
	Pulmonary, Thoracic, and Respiratory System	44	14					1021
	Bones and Joints	22	2				252	77
	Abdominal Peritonitis	8	1					26
	Peripheral Glands	2						13
	Meningitis and Brain	1	14				10	26
	Skin (Lupus)	1						4
	Urino-genital	1						15
	Toxituberculide				1			1
	Bazin's Disease							—
	Ulceration of the Skin							—
	Empyema							—
	Fistula							—
	Soft Palate							—
	Other sites and ill-defined	9	1					23
	Syphilis—Congenital	9	2					29
	Acquired	1						67
	Gonorrhoea	4						109
	Gonorrhoeal Ophthalmia	2						5
	Other Venereal Disease							1
	Undulant Fever		2					26
	Purulent Infection, Septicæmia (but not Puerperal)			1				1
	Malaria							—
	Hydatid Cysts	1						—
	Mycoses							—
	German Measles	40						42
	Chickenpox	10						10
	Mumps	8						1
	Pemphigus Neonatorum							9
	Other Infectious Diseases							—
	TOTALS	522	73	14	1	351	275	2,036

CANCER AND OTHER TUMOURS (Malignant Disease, Carcinoma, Sarcoma, etc.)	Cancer of—Lip, Mouth, and Pharynx								8	15						14	23	60		
	Larynx							4	8							2	4	18		
	Thorax (bronchi, lungs, mediastinum, pleura, pericardium)							36	27							16	24	103		
	Esophagus							5	6							4	9	24		
	Stomach						1	22	35							24	30	112		
	Intestines (including anus, appendix, caecum, caput coli, colon, duodenum, ileum, jejunum, rectum, sigmoid, etc.)							58	44							39	37	178		
	Pancreas							1	4							3	9	17		
	Gall Bladder and Liver							10	15							6	19	50		
	Peritoneum							2								—	1	3		
	Respiratory Organs							—								1	1	2		
	Uterus							23	5							37	14	79		
	Other Female Genital Organs							12	10							35	13	70		
	Breast							14	11							22	19	66		
	Male Genito-urinary Organs							16	8							4	8	36		
	Skin							1	2							3	1	7		
	Other or Unspecified Organs							5	6							8	8	27		
	Other Tumours	2	1					18	2							11	6	40		
	TOTALS	2	1				1	235	198							229	226	892		
	Rheumatic DISEASES OF NUTRITION AND OF ENDOCRINE GLANDS AND OTHER GENERAL DISEASES																			
	Rheumatic Fever and Acute Rheumatism, together with Sub-acute Rheumatism	115	3							78								2	311	
	Chorea	86	—							16								—	112	
	Non-articular manifestations of so-called "Rheumatism" (muscular rheumatism, fibrositis, lumbago, sciatica, and rheumatic neuritis)	4	—				1	132	1								1	6	275	
	Chronic Arthritis	1	—					89	1									—	193	
	Gout	—	—					2	—									—	3	
	Diabetes Mellitus	1	—					92	12									18	198	
Bickets	40	1					1	—									—	42		
Other Deficiency Diseases	5	—					6	1									1	21		
Diseases of Thyroid, etc.	1	—					36	—									3	70		
Other General Diseases	15	—					34	2									5	129		
TOTALS	268	4				3	486	17							536	36	1,354			
DISEASES OF BLOOD AND BLOOD-FORMING ORGANS																				
Diseases of Blood, etc.	16	2					61	2							54	12	147			
TOTALS	16	2					61	2							54	12	147			
CHRONIC POISONING																				
Alcoholism		—					18								12	—	—	30		
Other		—					—								1	—	—	1		
TOTALS		—					18								13	—	—	31		

	20	24	1	116	1	—	2	2	991	138	8	5	944	198	3,389
DISEASES OF RESPIRATORY SYSTEM	20	24	1	116	1	—	2	2	991	138	8	5	944	198	3,389
Diseases of Nose and Larynx .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis	431	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchiectasis	9	69	..	..	..	..	..	..	..	..	..	..	..	..	..
Broncho-pneumonia	128	16	..	..	..	..	..	..	..	..	..	..	..	..	..
Lobar Pneumonia	222	6	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Pneumonia	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Empyema	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pleurisy	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Embolism .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Asthma	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Respiratory System	119	1	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	984	116	1	116	1	—	2	2	991	138	8	5	944	198	3,389
DISEASES OF DIGESTIVE SYSTEM	45	2	2	2	2	2	3	3	1,210	1,777	12	4	1,574	95	5,011
Diseases of Teeth and Gums	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vincent's Angina	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Tonsils (tonsillitis, etc.)	1,210	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Mouth, Pharynx, and Esophagus	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ulcer of Stomach and Duodenum	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Stomach (excluding tumours)	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea and Enteritis	145	30	..	..	..	..	..	..	..	..	..	..	..	..	..
Appendicitis	164	6	1	..	..	..	3	1	282	9	5	..	312	6	788
Hernia	37	1	..	..	..	..	..	..	202	8	..	..	163	4	416
Intestinal Obstruction	12	2	..	..	..	..	..	..	24	10	..	..	24	18	90
Constipation and Other Diseases of Intestine	116	3	1	..	..	..	..	..	143	5	1	..	172	8	450
Cirrhosis and Other Diseases of Liver, Diseases of Gall Bladder and of Pancreas	8	..	..	..	..	..	..	..	102	8	..	..	135	15	268
Peritonitis (non-tuberculous and without stated cause)	2	4	..	..	..	..	..	..	3	10	..	..	3	7	29
Fistula in Ano .. .. .	..	..	..	..	..	..	..	..	19	..	..	..	17	1	57
Ischio Rectal Abscess	1	..	..	..	..	..	..	..	29	..	..	..	28	..	58
TOTALS	1,777	52	5	52	5	—	4	1	1,413	74	12	4	1,574	95	5,011
NON-VENEREAL DISEASES OF GENITO-URINARY SYSTEM	33	6	10	6	5	51	12	123	33	7	1	1	11	14	2,040
Acute Nephritis	33	..	..	..	..	..	..	..	15	3	..	..	11	14	62
Chronic Nephritis	6	..	..	..	..	..	..	..	25	7	..	..	32	2	86
Pyelitis (including peri-nephritic abscess)	10	..	..	..	..	..	..	..	60	1	..	..	68	33	141
Other Diseases of Kidney	6	1	..	..	..	..	..	..	82	39	..	..	88	17	249
Diseases of Bladder and Urethra	5	..	..	..	..	..	..	..	82	16	..	..	66	19	186
Diseases of Prostate .. .. .	..	..	..	..	..	..	..	..	54	8	..	..	45	2	126
Other Diseases of Male Genital Organs	51	..	..	..	..	..	..	..	61	1	..	..	73	2	188
Diseases of Female Genital Organs	12	..	..	..	..	..	1	..	498	2	4	..	483	2	1,002
TOTALS	123	1	1	1	1	—	2	..	877	77	4	1	866	89	2,040

Disease Group	Disease	Booth Hall Hospital		Grumpsall Hospital		Withington Hospital		Totals	
		Men and Women		Men and Women		Men and Women			
		Children under 16	Disch.	Children under 16	Disch.	Children under 16	Disch.		
DISEASES OF PREGNANCY, CHILDBIRTH, AND THE PUERPERAL STATE	Puerperal Pyrexia—								
	1. Women confined in hospital	—	—	—	—	—	—	19	
	2. Women admitted from outside	—	—	—	—	—	—	1	
	Puerperal Sepsis—							4	
	1. Women confined in hospital	—	—	—	—	—	—	—	
	2. Women admitted from outside	—	—	—	—	—	—	—	
	Post-abortive Sepsis	—	—	—	—	—	—	—	
	Abortion and Threatened Abortion	—	—	—	—	—	—	—	
	Ante-natal Observation, etc.	—	—	—	—	—	—	—	
	Ectopic Gestation and other Accidents of Pregnancy..	—	—	—	—	—	—	—	
	{ Puerperal Haemorrhage	—	—	—	—	—	—	—	
	{ Puerperal Albuminuria and Convulsions and other Toxaemias of Pregnancy	—	—	—	—	—	—	—	
	{ Other Accidents of Childbirth	—	—	—	—	—	—	—	
	{ Puerperal Insanity	—	—	—	—	—	—	—	
	{ Puerperal Diseases of Breast.. .. .	—	—	—	—	—	—	—	
TOTALS	—	1	792	—	11	—	10	1,757	
DISEASES OF SKIN	Carbuncle, Boil	84	2	—	—	—	—	416	
	Cellulitis, Acute Abscess	177	—	—	—	—	—	554	
	Bedsore	—	—	—	—	—	—	6	
	Dermatitis	15	2	—	—	—	—	115	
	Eczema	29	3	—	—	—	—	150	
	Herpes Zoster	3	—	—	—	—	—	12	
	Impetigo	249	3	—	—	—	—	317	
	Scabies	62	—	—	—	—	—	160	
	Ulcer of Leg	—	—	—	—	—	—	130	
	Other Diseases of Skin	55	3	—	—	—	—	244	
	TOTALS	674	13	3	687	23	7	11	2,104
	NON-TUBERCULOUS DISEASES OF BONES AND ORGANS OF LOCOMOTION	Osteomyelitis and Periostitis	20	2	—	—	—	—	56
		Talipes	4	—	—	—	—	—	8
		Deformities due to Poliomyelitis	—	—	—	—	—	—	1
		Other Diseases of Bones, Joints, etc.	40	1	1	103	2	1	243
TOTALS		64	3	1	129	3	1	3	308

CONGENITAL MALFORMATIONS

Hydrocephalus and Spina Bifida and Meningocele	3	14	—	—	—	3	—	—	—	—	3	5	—	—	—	—	30
Congenital Pyloric Stenosis	6	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	7
Cleft Palate, Hare Lip	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Other Congenital Malformations	5	5	—	—	—	3	1	—	—	—	—	1	—	—	—	—	19
TOTALS	17	19	—	—	—	6	1	—	—	—	7	6	—	—	—	—	59

DISEASES OF EARLY INFANCY

Atrophy, Debility, Marasmus, etc.	58	23	—	—	—	9	2	—	—	—	1	—	—	—	—	—	135
Premature Birth	12	22	—	—	—	47	8	—	—	—	25	37	—	—	—	—	151
Injury at Birth	1	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	3
Other Diseases of Early Infancy	17	2	—	—	—	10	2	—	—	—	7	21	—	—	—	—	63
TOTALS	88	47	—	—	—	66	4	—	—	—	34	59	—	—	—	—	352

Old Age, Senility, Senile Decay (not senile dementia)

	—	—	—	1	—	—	245	228	—	—	—	—	—	—	—	—	667
TOTALS	—	—	—	1	—	—	245	228	—	—	—	—	—	—	—	—	667

VIOLENCE

Poisoning by Coal Gas or other Gas	2	—	—	1	—	—	8	—	—	—	—	—	—	—	—	—	17
Food Poisoning	1	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	5
Other Poisoning	1	—	—	—	—	1	7	2	—	—	—	—	—	—	—	—	24
Cut Throat	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	7
Drowning and Suffocation	7	—	—	—	—	—	5	—	—	—	—	—	—	—	—	—	12
Electrical Injuries and Lightning	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	3
Burns	40	1	—	—	—	—	36	1	—	—	—	—	—	—	—	—	105
Scalds	103	4	—	—	—	—	13	3	—	—	—	—	—	—	—	—	152
Other Accidents associated with Fracture	97	1	—	—	—	—	335	24	—	—	7	27	—	—	—	—	825
Other Accidents without Fracture	211	2	—	—	—	—	361	8	—	—	4	1	—	—	—	—	909
Other Forms of Violence	12	—	—	—	—	—	9	1	—	—	1	—	—	—	—	—	35
TOTALS	474	8	18	1	—	9	778	42	—	—	12	4	—	—	—	—	2,091

Ill-defined Diseases

	129	—	1	—	—	3	214	4	—	—	2	54	—	—	—	—	407
TOTALS	129	—	1	—	—	3	214	4	—	—	2	54	—	—	—	—	407

Convalescence (i.e., transferred from other Hospital)

	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
TOTALS	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25

HEALTHY

Healthy Mothers	1	—	68	—	—	—	—	—	—	—	—	—	—	—	—	—	5,036
Healthy Infants	6	—	—	—	—	2,669	—	—	—	—	2,151	—	—	—	—	—	4,826
Healthy (other than Mothers and Infants)	11	—	—	—	—	2	—	—	—	—	2	—	—	—	—	—	15
TOTALS	18	—	68	—	—	2,671	—	—	—	—	2,153	—	—	—	—	—	9,877

TABLE X. (SUMMARY OF TABLE IX.)
Classification (in Disease Groups) of Discharges and Deaths in the General Hospitals, 1938.

Disease Group	Booth Hall Hospital		Grumpsall Hospital		Withington Hospital		Totals
	Children under 16		Children under 16		Children under 16		
	Disch.	Died	Disch.	Died	Disch.	Died	
1. Infectious Disease	522	73	14	1	1	2	2,035
2. Cancer and Other Tumours	2	1	—	1	—	—	892
3. Rheumatism, Diseases of Nutrition, etc.	268	4	3	—	4	—	1,354
4. Diseases of Blood and Blood-forming Organs	16	2	—	—	—	—	147
5. Chronic Poisoning	—	—	—	—	—	—	31
6. Diseases of Nervous System and Sense Organs	344	21	2	1	5	5	1,887
7. Diseases of Circulatory System	120	16	2	—	5	4	2,002
8. " Respiratory System	984	116	2	2	8	5	3,389
9. " Digestive System	*1,777	52	4	1	12	4	5,011
10. Non-Venereal Diseases of Genito-urinary System	123	1	2	—	4	1	2,040
11. Diseases of Pregnancy, Childbirth, and the Puerperal State	—	—	—	—	—	1	1,757
12. Diseases of Skin	674	13	1	—	7	1	2,104
13. Non-Tuberculous Diseases of Bones and Organs of Locomotion	64	3	2	—	1	—	308
14. Congenital Malformations	17	19	2	6	7	6	59
15. Diseases of Early Infancy	88	47	51	66	34	59	352
16. Old Age, Senility, and Senile Decay	—	—	—	—	—	—	667
17. Violence	474	8	9	—	12	4	2,091
18. Ill-defined Diseases	129	—	3	—	2	—	407
19. Convalescence	24	—	—	—	—	—	25
20. Healthy	18	—	2,671	—	2,153	—	9,877
	5,644	376	2,768	78	2,255	92	36,435
	6,020	111	2,846	15,475	2,347	12,480	
GRAND TOTALS	6,133	113	15,475	14,827			

TABLE

CLASSIFICATION (IN DISEASE GROUPS) OF
IN 1938 ACCORDING TO

DISEASE GROUP		0—5		6—10	
1.	Infectious Disease	Discharged	392		83
		Died		55	6
2.	Cancer and Other Tumours	Discharged	1		..
		Died .. .. .		..	..
3.	Rheumatism, Diseases of Nutrition, etc.	Discharged	60		85
		Died		1	..
4.	Diseases of Blood and Blood-forming Organs	Discharged	2		8
		Died		2	..
5.	Chronic Poisoning	Discharged	..		..
		Died .. .. .		..	..
6.	Diseases of Nervous System and Sense Organs	Discharged	174		118
		Died		15	2
7.	Diseases of Circulatory System	Discharged	59		38
		Died		4	3
8.	Diseases of Respiratory System	Discharged	717		170
		Died		112	2
9.	Diseases of Digestive System	Discharged	770		655
		Died		44	4
10.	Non-Venereal Diseases of Genito-urinary System	Discharged	56		35
		Died .. .. .		..	..
11.	Diseases of Pregnancy, Childbirth, and the Puerperal State	Discharged	..		..
		Died .. .. .		..	..
12.	Diseases of Skin	Discharged	368		167
		Died		13	..
13.	Non-Tuberculous Diseases of Bones and Organs of Locomotion	Discharged	17		18
		Died		1	1
14.	Congenital Malformations	Discharged	17		..
		Died		19	..
15.	Diseases of Early Infancy	Discharged	68		14
		Died		47	..
16.	Old Age, Senility, and Senile Decay	Discharged	..		..
		Died .. .. .		..	..
17.	Violence	Discharged	284		75
		Died		5	3
18.	Ill-defined Diseases	Discharged	50		48
		Died .. .. .		..	..
19.	Convalescence	Discharged	7		13
		Died .. .. .		..	..
20.	Healthy	Discharged	11		2
		Died .. .. .		..	..
TOTALS		Discharged	3053		1529
		Died		318	21

I.
DISCHARGES AND DEATHS IN BOOTH HALL HOSPITAL
SELECTED LIFE PERIODS.

AGE GROUPS

11—15		16—25		26—40		41—50		51—60		61—70		71—80		Over 80		Totals	
47	12	8	..	..	..	..	..	..	..	..	..	..	..	..	..	530	73
1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
123	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	268	4
6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	2
..
52	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	348	21
23	9	..	..	..	..	1	..	..	..	..	..	..	..	..	..	121	16
97	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	985	116
352	4	4	..	..	1	..	..	..	..	..	..	..	..	..	..	1782	52
32	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	123	1
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
139	1	1	..	1	..	..	..	..	..	1	..	..	..	..	..	677	13
29	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	65	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	19
6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	88	47
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
115	6	..	4	..	2	..	4	..	1	1	1	..	..	..	..	492	9
31	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	130	..
4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	..
5	..	21	..	43	..	4	..	..	..	..	..	..	..	..	..	86	..
..
063	37	45	..	49	1	7	..	5	..	1	..	3	1	..	..	5755	378

TABLE

CLASSIFICATION (IN DISEASE GROUPS) OF
IN 1938, ACCORDING TO

DISEASE GROUP		0-5		6-10	
1. Infectious Disease	Discharged	11		..	..
	Died		1		..
2. Cancer and Other Tumours	Discharged	..	..	..	..
	Died				1
3. Rheumatism, Diseases of Nutrition, etc.	Discharged	2		..	..
	Died		..		..
4. Diseases of Blood and Blood-forming Organs	Discharged	..	..	..	..
	Died		..		..
5. Chronic Poisoning	Discharged	..	..	..	..
	Died		..		..
6. Diseases of Nervous System and Sense Organs	Discharged	1		1	..
	Died		1		..
7. Diseases of Circulatory System	Discharged	2		..	..
	Died		..		..
8. Diseases of Respiratory System	Discharged	1		..	..
	Died		2		..
9. Diseases of Digestive System	Discharged	..	1	..	..
	Died		..		..
10. Non-Venereal Diseases of Genito-urinary System	Discharged	..	..	..	..
	Died		..		..
11. Diseases of Pregnancy, Childbirth, and the Puerperal State	Discharged	..	..	..	..
	Died		..		..
12. Diseases of Skin	Discharged	1		..	..
	Died		..		..
13. Non-Tuberculous Diseases of Bones and Organs of Locomotion	Discharged	1		..	..
	Died		..		..
14. Congenital Malformations	Discharged	2		..	..
	Died		6		..
15. Diseases of Early Infancy	Discharged	51		..	..
	Died		66		..
16. Old Age, Senility, and Senile Decay	Discharged	..	..	..	..
	Died		..		..
17. Violence	Discharged	6		..	..
	Died		..		..
18. Ill-defined Diseases	Discharged	3		..	..
	Died		..		..
19. Convalescence	Discharged	..	..	..	..
	Died		..		..
20. Healthy	Discharged	2670		1	..
	Died		..		..
TOTALS		2751	77	2	1

II.

DISCHARGES AND DEATHS IN CRUMPSALL HOSPITAL
SELECTED LIFE PERIODS.

		AGE GROUPS																	
		1—15		16—25		26—40		41—50		51—60		61—70		71—80		Over 80		Totals	
3	..	93	2	139	6	46	4	47	9	22	7	4	1	..	1	365	31		
..	..	4	..	18	8	46	20	63	52	78	69	20	42	6	7	235	199		
1	..	60	..	139	3	80	2	78	..	92	9	33	3	4	..	489	17		
..	..	6	..	10	..	11	..	12	1	13	..	9	1	..	..	61	2
..	..	1	..	9	..	1	..	2	..	4	..	1	1	..	..	18	..
..	..	86	..	173	..	116	..	83	..	103	..	25	..	6	..	594	..		
..	..	42	6	103	10	104	14	109	33	151	85	56	45	5	5	572	199		
..	..	122	12	229	23	167	30	230	67	168	149	71	114	4	20	993	415		
1	..	333	8	446	20	228	18	217	36	137	32	50	21	2	3	1417	140		
4	..	157	8	341	15	172	16	113	13	75	16	18	5	1	1	879	75		
2	..	282	8	473	10	36	12	..	16	..	19	1	11	..	1	792	77		
..	..	150	1	166	10	105	..	132	..	87	..	40	..	7	..	688	11		
..	..	23	6	43	2	23	1	20	3	13	8	7	3	..	..	131	23
1	..	1	..	..	1	..	1	..	1	..	..	..	..	..	..	3	3
..	..	3	..	..	..	..	..	1	..	..	..	..	..	..	..	55	6
..	..	..	..	..	..	..	..	3	..	50	..	154	..	38	..	245	66
..	..	118	..	159	..	112	..	155	2	154	18	68	139	12	69	787	228		
3	..	38	2	58	4	39	5	43	6	27	10	9	8	..	7	217	42		
..	..	..	..	..	1	..	1	..	..	..	1	..	1	..	..	..	4
..	..	1509	..	62	..	2	..	..	..	..	..	..	..	..	..	5396	..
..		
7	..	3028	53	2563	113	1288	124	1308	239	1174	423	566	394	85	114	13937	1538		

CLASSIFICATION (IN DISEASE GROUPS) OF
IN 1938, ACCORDING TO

DISEASE GROUP		0-5		6-10	
		Discharged	Died	Discharged	Died
1.	Infectious Disease .. .. .	..	2	..	..
2.	Cancer and Other Tumours .. .. .	..	..	..	..
3.	Rheumatism, Diseases of Nutrition, etc.	3	..	..	..
4.	Diseases of Blood and Blood-forming Organs .. .. .	..	..	..	..
5.	Chronic Poisoning .. .. .	..	..	..	..
6.	Diseases of Nervous System and Sense Organs	4	5	..	..
7.	Diseases of Circulatory System	4	3	..	1
8.	Diseases of Respiratory System	6	5	..	..
9.	Diseases of Digestive System	5	4	2	..
10.	Non-Venereal Diseases of Genito-urinary System	1	1	..	..
11.	Diseases of Pregnancy, Childbirth, and the Puerperal State .. .. .	..	1	..	..
12.	Diseases of Skin	3	1	..	..
13.	Non-Tuberculous Diseases of Bones and Organs of Locomotion.. .. .	..	..	1	..
14.	Congenital Malformations	7	6	..	..
15.	Diseases of Early Infancy.. .. .	34	59	..	..
16.	Old Age, Senility, and Senile Decay .. .. .	..	..	..	..
17.	Violence	4	1	2	..
18.	Ill-defined Diseases	1	..	..	..
19.	Convalescence .. .. .	..	..	..	..
20.	Healthy	2153	..	..	..
TOTALS		2225	88	5	1

KIII.

DISCHARGES AND DEATHS IN WITHINGTON HOSPITAL
SELECTED LIFE PERIODS.

		AGE GROUPS															
11—15		16—25		25—40		41—50		51—60		61—70		71—80		Over 80		Totals	
1	..	191	46	260	80	131	53	117	56	56	33	3	7	..	..	759	277
..	..	1	1	19	14	59	30	59	54	61	83	26	33	4	11	229	226
1	..	72	..	136	2	112	1	89	12	92	11	31	9	4	1	540	36
..	..	8	..	12	2	8	1	13	2	11	1	2	5	..	1	54	12
..	..	1	..	2	2	5	1	3	2	1	1	1	5	..	1	13	0
1	..	71	..	142	..	89	..	102	..	97	..	40	..	4	..	550	175
1	..	32	1	91	7	79	11	118	26	138	60	73	55	2	10	538	340
2	..	137	8	247	28	138	21	191	66	143	113	78	88	10	12	952	203
5	..	356	8	520	22	284	25	209	48	140	53	61	36	4	6	1586	99
3	..	144	6	353	18	150	14	91	14	92	23	33	18	3	2	870	90
..	..	335	2	570	3	37	10	..	20	..	25	..	24	..	5	942	11
4	..	176	2	190	7	105	1	96	..	83	..	30	..	4	..	691	12
..	..	19	1	32	..	19	2	19	1	8	4	4	2	1	1	103	3
..	..	..	..	..	2	..	..	..	..	1	..	..	1	..	..	8	6
1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35	61
..	..	..	..	..	1	..	1	2	..	16	..	61	..	30	..	109	84
6	..	130	..	151	..	99	..	117	1	111	7	73	38	18	38	711	50
1	3	11	4	15	3	9	5	4	8	11	8	4	13	..	5	56	..
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	905	..	1292	..	44	..	1	..	..	..	..	..	..	..	4395	..
..
26	3	2589	79	4033	189	1368	175	1231	308	1061	421	520	329	84	92	13142	1685

TABLE
(Summary of Table)

CLASSIFICATION (IN DISEASE GROUPS) OF
GENERAL HOSPITALS IN 1938. ACCORDING

DISEASE GROUP		0—5		6—10	
		Discharged	Died	Discharged	Died
1. Infectious Disease	Discharged	403		83	
	Died		58		6
2. Cancer and Other Tumours	Discharged	1			
	Died				1
3. Rheumatism, Diseases of Nutrition, etc.	Discharged	65		85	
	Died		1		
4. Diseases of Blood and Blood-forming Organs	Discharged	2		8	
	Died		2		
5. Chronic Poisoning	Discharged				
	Died				
6. Diseases of Nervous System and Sense Organs	Discharged	179		119	
	Died		21		2
7. Diseases of Circulatory System	Discharged	65		38	
	Died		7		4
8. Diseases of Respiratory System	Discharged	724		170	
	Died		119		2
9. Diseases of Digestive System	Discharged	775		657	
	Died		49		4
10. Non-Venereal Diseases of Genito-urinary System	Discharged	57		35	
	Died		1		
11. Diseases of Pregnancy, Childbirth, and the Puerperal State	Discharged				
	Died		1		
12. Diseases of Skin	Discharged	372		167	
	Died		14		
13. Non-Tuberculous Diseases of Bones and Organs of Locomotion	Discharged	18		19	
	Died		1		1
14. Congenital Malformations	Discharged	26			
	Died		31		
15. Diseases of Early Infancy	Discharged	153		14	
	Died		172		
16. Old Age, Senility, and Senile Decay	Discharged				
	Died				
17. Violence	Discharged	294		77	
	Died		6		3
18. Ill-defined Diseases	Discharged	54		48	
	Died				
19. Convalescence	Discharged	7		13	
	Died				
20. Healthy	Discharged	4834		3	
	Died				
TOTALS..		8029		1536	
	Died		483		23

V.

XII., and XIII.).
**SCHARGES AND DEATHS IN THE THREE
 SELECTED LIFE PERIODS.**

AGE GROUPS															
-15	16-25		26-40		41-50		51-60		61-70		71-80		Over 80	Totals	
	292		399		177		164		78		7		..	1654	
12	48		86		57		65		40		8		1	381	
	5		37		105		122		139		46		10	466	
1	1		22		50		106		152		75		18	426	
	132		275		192		167		184		64		8	1297	
3	..		5		3		12		20		12		1	57	
	14		22		19		25		24		11		..	131	
..	..		2		1		3		1		6		1	16	
..	2		11		6		5		5		2		..	31	
..	
4	161		315		205		185		200		65		10	1492	
	7		17		25		9		145		100		15	345	
9	20		51		51		133		262		202		32	771	
	259		477		305		421		311		149		14	2930	
2	16		43		44		84		85		57		9	461	
	693		966		513		426		277		111		6	4785	
4	14		33		30		27		39		23		3	226	
	301		694		322		204		167		51		4	1872	
1	10		13		22		36		44		35		6	168	
..	617		1043		73		..		..		1		..	1735
..	3		17		1		..		..		..		..	22
..	327		357		210		228		170		71		11	2056	
..	7		2		3		4		12		5		1	48	
	43		75		42		39		21		11		1	299	
1	..		3		1		1		..		1		..	9	
..	1		..		..		..		1		..		..	28
..	3		..		..		1		..		..		..	31
..	..		1		1		..		..		..		..	178
..	..		..		..		5		66		215		68	354
..	..		..		..		3		25		178		107	313
3	254		514		213		276		266		142		30	1990	
	6		8		10		14		18		21		12	101	
	49		73		48		47		38		14		..	403	
..	..		1		1		..		1		1		..	4	
..	..		..		..		..		..		..		..	25
..	2435		1397		50		1		..		..		..	9877
..	
40	5662	132	6650	304	2663	300	2544	497	2236	844	1089	724	169	206	32834
														3601	
														36435	

TABLE XV.

SOURCES OF ADMISSION OF PATIENTS DISCHARGED
FROM OR DYING IN GENERAL HOSPITALS
DURING THE YEAR ENDED
31st DECEMBER, 1938.

(Excluding Births).

Source of Admission	Booth Hall Hospital	Crumpsall Hospital	Withington Hospital	Totals
District Medical Officer ..	268	1,440	675	2,383
General Practitioner ..	3,032	6,298	6,933	16,263
Voluntary Hospital ..	1,053	1,046	896	2,995
*City Institution	146	393	93	632
*City Hospital	247	130	147	524
Other	‡1,254	‡2,856	‡2,784	6,894
†Staff Cases	17	54	107	178
Maternity and Child Welfare Centres	16	29	—	45
Accident Ward	96	33	261	390
Emergency	4	575	816	1,395
Totals	6,133	12,854	12,712	31,699

* Transfers.

† Includes Staff from Corporation establishments other than Public Health.

‡ At Booth Hall Hospital the classification "Other" includes cases sent in by Education Department and the Central Public Health Office. Maternity cases classified as "Other" at Withington and Crumpsall Hospitals.

CONVALESCENT HOME WORK.

Report relating to Persons recommended for Convalescent Home Treatment during the year ended 31st December, 1938.

Number in convalescent homes on January 1st, 1938 .. 187

Number admitted January 1st to December 31st, 1938—

Adults 200

Children 600

Total 800

Number discharged January 1st to December 31st—

Adults 199

Children 619

Total 818

Number remaining in convalescent homes on December 31st 169

	Admissions		Discharges	
	Adults	Children	Adults	Children
March quarter	32	82	25	95
June quarter	54	199	46	181
September quarter	78	185	80	174
December quarter	36	134	48	169
	200	600	199	619

Summary of Admissions.

Name of Home	No. of Patients	
	Adults	Children
Southport Convalescent Hospital, Southport	121	—
The Liverpool Convalescent Home, Woolton	75	—
Devonshire Royal Hospital, Buxton	3	—
Lear Home of Recovery, West Kirby	1	—
Royal Alexandra Hospital, Rhyl	—	10
Dr. Garrett Memorial Home, Conway	—	495
Children's Convalescent Home, West Kirby	—	23
Rose Hill Convalescent Home, Northenden.. .. .	—	70
Blackburn and District Convalescent Home	—	2
	200	600
Total	800	

Summary of Discharges.

NAME OF HOME	To Home Improved	To own Homes Fit	To Booth Hall Hospital for Observation	To Booth Hall Hospital for Final Examinations	To Monsall Hospital	Children Discharged Home on Demand
ADULTS:—						
Southport Convalescent Home, Southport	120	—	—	—	—	—
Liverpool Convalescent Home, Woolton	75	—	—	—	—	—
Devonshire Royal Hospital, Buxton	3	—	—	—	—	—
Lear Home of Recovery, West Kirby	1	—	—	—	—	—
Royal Alexandra Hospital, Rhyl	—	—	—	—	—	—
Total	199	—	—	—	—	—
		Total—199.				
CHILDREN:—						
Dr. Garrett Memorial Home, Conway	14	315	94	47	—	37
Children's Convalescent Home, West Kirby	—	25	—	—	—	—
Rose Hill Convalescent Home, Northenden	—	45	5	—	7	17
Royal Alexandra Hospital, Rhyl	4	7	—	—	—	—
Blackburn and District Convalescent Home, St. Annes-on-Sea	—	2	—	—	—	—
Total	18	394	99	47	7	54
		Total—619.				

Journeys.

March quarter	11
June quarter	10
September quarter ..	15
December quarter ..	11
	—
	47

Outfits of Clothing.

The amounts expended on the provision of clothing to enable patients to proceed to convalescent home during the year ended 31st December, 1938, were as follows :—

Public Health Committee—

	£	s.	d.	£	s.	d.
March quarter	92	12	8			
June quarter	99	3	1			
September quarter ..	132	2	11			
December quarter ..	178	8	8			
	<hr/>					
				502	7	4

Public Assistance Committee—

March quarter	57	0	8			
June quarter	70	0	1			
September quarter ..	57	14	7			
December quarter ..	52	5	7			
	<hr/>					
				237	0	11
	<hr/>					
Total				739	8	3
				<hr/> <hr/>		

In 1938 there were 200 adults and 600 children given convalescent treatment as against 231 adults and 527 children in 1937, showing a decrease in the numbers of adult patients and an increase in the numbers of children.

In 1938 the discharges showed 199 adults and 619 children against 233 adults and 475 children in 1937. A decrease in the adults and an increase in the children is also noted here.

During the year the number of journeys increased by four.

The amount of money expended on outfits of clothing during the year shows an increase of 13s. 1d. on the amount expended in 1937. The Public Assistance account shows a decrease of £114 2s. 7d. and the Public Health account shows an increase of £114 15s. 8d.

The recommendations for adult patients to receive convalescent treatment are received from Crumpsall Hospital, Withington Hospital, and the District Medical Officers. The children's recommendations are received from the Booth Hall Hospital, the Manchester Northern Hospital, St. Mary's Hospital, the Duchess of York Hospital, the Child Welfare Centres, the District Medical Officers, and the School Medical Officer.

During the year, for various reasons, twenty-six adult recommendations and forty children's recommendations have been cancelled. The particulars of these recommendations are as follow :—

<i>Adults.</i>	<i>Children.</i>
Cancelled by patients 12	Cancelled by parents 26
Cancelled by District Medical Officers 3	Cancelled by District Medical Officer 3
Cancelled by Medical Officer of Health 5	Cancelled by Medical Officer of Health —
Referred to Prestwich Authority.. 1	Cancelled by Dr. Ramsay.. .. 1
Considered too poorly 1	Cancelled by Almoner, St. Mary's Hospital 1
Transferred to Insurance Society 1	Cancelled by Welfare doctor .. 1
Transferred to Hospital Saturday Fund 2	Cancelled by Dr. Liddle (Monsall Hospital) 1
Committed suicide prior to receiving convalescent treatment.. 1	Cancelled by Booth Hall Hospital 1
	Referred to Salford Authority.. 1
	Referred to Hospital Saturday Fund 2
	Transferred to Manchester Corporation Hospital and Convalescent Home Fund .. 1
	Transferred to Abergele Sanatorium 2

All the cases of infectious disease and other illnesses during the year occurred at the Dr. Garrett Memorial Home, Conway, the Children's Convalescent Home, West Kirby, and the Rose Hill Convalescent Home, Northenden, and were as follow:—

DR. GARRETT MEMORIAL HOME, CONWAY.

Tonsillitis	22	Septic spots on back	1
Colds	9	Septic gnat bites	3
Pneumonia	1	Septic finger	3
Spots on buttock	1	Discharging ears	68
Croupy cough	2	Seborrhœa	3
Cut lip	1	Scabies	1
Chilblains	16	Scurvy	3
Biliousness	2	Discharging eye	1
Diphtheria	5	Hæmaturia, abscess under chin..	1
Bronchial cold	1	Bumped forehead	2
Mastoid	1	Measles	22
Blepharitis	4	Gastric Influenza	1
Bronchiectasis	4	Pleurisy	1
Diarrhœa	3	Cut finger	1
Eczema	3	Vaginitis	2
Conjunctivitis	4	Chill.. .. .	14
Desquamating	2	Boils	8
Impetigo	8	Blister on arm	1
Abscess on hand	1	Asthma	1
Bronchial	5	Glands of neck	2
Psoriasis	4	Corneal ulcer	1
Herpes	17	Bronchial herpes	1
Nephritis	2	Chorea	2
Cracked ear	50	Styes	4
Mumps	29	Cough	16
Inflamed eyes	3	Chickenpox	47
Septic thumb	2	Minor sores on various parts of	
Septic toe	4	the body	132
Septic spots on thigh	1	Grazes on various parts of the	
Septic spots on hands.. .. .	1	body	18

THE CHILDREN'S CONVALESCENT HOME, WEST KIRBY.

Boils	1
Chickenpox	3

THE ROSE HILL CONVALESCENT HOME, NORTHENDEN.

Right side of buttocks and leg burnt on pipes	1	} Transferred to Booth Hall Hospital	
Diphtheria carriers	6		
Scarlet fever	1		
Chickenpox	3		
		Epistaxis	1
		Swelling over nose	1
		Enteritis	1
		Whooping cough	1

There are two epileptic patients chargeable to the Manchester Corporation at the following epileptic colonies:—

One man, aged twenty-five years, at the David Lewis Colony, Alderley Edge.

One woman, aged twenty-five years, at the St. Elizabeth's Home, Much Hadham.

These two patients have been allowed to remain at these homes because, in each case, they have been there since childhood and are happily settled.

In the case of the man patient at the David Lewis Colony, a proportion of the charges involved is met by the Post Office Orphans' Fund.

Public Vaccination.

The number of public vaccinators is 26, and there are 4 vaccination officers.

The percentage of infants successfully vaccinated in Manchester—50·67 per cent. in 1937—continues to be considerably higher than that for England and Wales as a whole. The percentages for each of the five years 1932 to 1936 were:—

Year	England and Wales	Manchester
	%	%
1932	38·2	52·45
1933	37·0	52·17
1934	36·1	51·40
1935	35·4	52·17
1936	34·9	51·57

The following is a summary of the return made to the Ministry of Health, of vaccinations for the year *1937:—

	Total	Percentage
Number of successful vaccinations.. .. .	6,197	50·67
Number insusceptible of vaccination	24	0·19
Number of exemptions	3,849	31·47
Number died unvaccinated	737	6·03
Number not traceable : removed to other districts or postponed	1,423	11·64
Number of children born ..	12,230	100·00

* Returns for vaccination are always for the year preceding the year covered by this report. This is unavoidable, since the period of four months from the date of birth is allowed for exemption purposes.

ABERGELE SANATORIUM.

Report for Year Ended 31st December, 1938.

By Dr. J. E. Geddes, Medical Superintendent.

The available beds are allocated according to the age of the patient and the type of disease, as follows :—

Age	Type of Tubercle	Sex	Number of Beds
1—4	Bone and Joint Tuberculosis ..	{ 10 boys 10 girls	} 20
4—15	Ditto ditto ..	{ 37 boys 36 girls	} 73
1—4	Pulmonary tuberculosis, including tracheo-bronchial glands, peripheral glands, and abdominal tuberculosis	{ 10 boys 10 girls	} 20
4—15	Ditto ditto	{ 37 boys 36 girls	} 73
—	Admission Ward	—	11
.....			
<i>Adults</i> (Plas Uchaf)	Pulmonary Tuberculosis	{ 42 males 10 females	} 52
		Total available beds	249
		Isolation Ward	10

At the commencement of the year there were 245 patients in the sanatorium :—

51 in the adult section and
194 in the children's section.

At the end of the year there were 243 patients in the sanatorium :—

49 in the adult section and
194 in the children's section.

TABLE 1.
General Classification of Cases Treated in 1938.

Classification on Admission	In Residence on 1st Jan., 1938		Admitted		Discharged		Died		In Residence on 1st Jan., 1939	
	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children
<i>Pulmonary Group—</i>										
T.B. Minus	8	49	19	33	21	26	1	—	5	56
T.B. Plus Group 1	2	5	2	1	2	4	—	—	2	2
T.B. Plus Group 2	41	22	25	4	21	5	3	3	42	18
T.B. Plus Group 3	—	1	—	—	—	1	—	—	—	—
<i>Non-Pulmonary Group—</i>										
Bones and Joints	—	75	—	29	—	20	—	2	—	82
Abdominal	—	18	—	7	—	14	—	—	—	11
Other Organs	—	2	—	—	—	1	—	—	—	1
Peripheral Glands	—	22	—	10	—	8	—	—	—	24
Totals	51	194	46	84	44	79	4	5	49	194
Observation	—	—	—	*2	—	*2	—	—	—	—
Pulmonary Group	—	—	—	—	—	—	—	—	—	—
Non-pulmonary Group	—	—	—	1	—	1	—	—	—	—

* Two of the three cases admitted for observation were ultimately diagnosed as tuberculous and are included as admissions in the Pulmonary and Non-pulmonary Groups of this table.

TOTAL PATIENTS TREATED—

Adults' section of the sanatorium 97
Children's section of the sanatorium 278

TABLE 2.

Analysis on Admission of Cases of Bone and Joint Tuberculosis.

	Hip Joint	Knee Joint	Ankle Joint	Spine	Other Bones	Multiple Areas
Advanced	1	3	..	2	..	..
Intermediate ..	5	1	..	3	1	2
Early	5	2	1	..	2	..
Totals	11	6	1	5	3	2

(One patient has not been classified.)

This classification is based on the extent of bone destruction as shown by the initial radiological examination. It does not take into account the degree of activity of the disease.

TABLE 3.
Result of Treatment in Discharged Pulmonary Cases.

Duration of Residence		Under 3 months		3-6 months		6-12 months		Over 12 months		Total					
Classification on Admission	Condition on Discharge	Adults		Children		Adults		Children		Adults		Children			
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
T.B. Minus	Quiescent	1	..	1	..	1	1	..	9	6	4	2	11	7	
	Improved	2	..	..	..	2	..	1	4	1	7	2	6	1
	Stationary	..	..	1	..	..	..	..	..	..	1	1	1	..
	Worse	..	..	..	..	..	..	..	..	..	..	..	..	..
	Died	..	..	1	..	..	..	..	..	..	1	..	..	..
T.B. Plus Group 1	Quiescent	..	..	..	..	..	..	..	2	2	..	..	2	2
	Improved	..	..	..	..	..	..	1	..	..	1	..	..	..
	Stationary	..	..	..	..	..	..	..	..	..	..	..	..	..
	Worse	..	..	..	..	..	..	..	..	..	..	..	..	..
	Died	..	..	..	..	..	..	..	..	..	..	..	..	..
T.B. Plus Group 2	Quiescent	..	..	..	..	..	1	..	..	..	..	..	..	3
	Improved	2	1	..	..	4	1	6	1	1	17	2	1	1
	Stationary	..	..	..	..	..	..	1	..	1	1	..	..	..
	Worse	..	..	..	..	..	..	..	..	..	..	..	..	..
	Died	..	1	..	..	..	..	3	..	3	..	..	..	3
T.B. Plus Group 3	Quiescent	..	..	..	..	..	..	..	..	..	..	..	..	..
	Improved	..	..	..	..	..	..	..	..	..	..	..	..	..
	Stationary	..	..	..	..	..	..	..	1	..	..	..	1	..
	Worse	..	..	..	..	..	..	..	..	..	..	..	..	..
	Died	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS		5	1	1	1	11	2	7	3	12	2	17	14	22	17
		6		1		10		5		14		31		39	

This table excludes observation cases, and five patients who were in residence for a period of less than 28 days.

TABLE 4.
Result of Treatment in Discharged Non-Pulmonary Cases.

Duration of Residence		Under 3 months		3-6 months		6-12 months		Over 12 months		Totals	
Classification on Admission	Condition on Discharge	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
*Bones and Joints	Quiescent	..	..	..	..	..	..	9	4	9	5
	Improved	1	..	..	..	..	..	4	..	4	..
	Stationary	1	..	..	..	..	..	1	..	1	..
	Worse	..	..	..	..	..	..	..	..	..	..
	Died	..	..	..	1	..	..	..	1	..	2
Abdominal	Quiescent	..	..	..	..	..	..	6	6	6	6
	Improved	..	..	2	..	..	..	2	..	2	..
	Stationary	..	..	..	..	..	..	..	..	..	..
	Worse	..	..	..	..	..	..	..	..	..	..
	Died	..	..	..	..	..	..	..	..	..	..
Other Organs	Quiescent	..	..	..	..	..	..	..	1	..	1
	Improved	..	..	..	..	..	..	..	..	..	..
	Stationary	..	..	..	..	..	..	..	..	..	..
	Worse	..	..	..	..	..	..	..	..	..	..
	Died	..	..	..	..	..	..	..	..	..	..
Peripheral Glands	Quiescent	..	..	..	..	..	..	4	1	4	1
	Improved	..	..	..	..	..	..	1	2	1	2
	Stationary	..	..	..	..	..	..	..	..	..	..
	Worse	..	..	..	..	..	..	..	..	..	..
	Died	..	..	..	..	..	..	..	..	..	..
TOTALS		2	2	2	2	23	15	27	17	44	

This table excludes one patient who was in residence for less than twenty-eight days.

* A complete analysis of the cases of bone and joint tuberculosis discharged during the year is shown in Table 12.

TABLE 5.

The result of treatment in these 126 discharged cases (Tables 3 and 4) was as follows (six cases, who were in residence for less than 28 days, are excluded from this table):—

	Total Cases Discharged	Quiescent	Improved	Stationary	Worse	Died
Adults (pulmonary)	43	7 (16.3%)	29 (67.4%)	3 (7.0%)	..	4 (9.3%)
Children (pulmonary)	39	25 (64.1%)	9 (23.0%)	2 (5.1%)	..	3 (7.8%)
Children (non-pulmonary)	44	32 (72.7%)	9 (20.5%)	1 (2.2%)	..	2 (4.6%)

The figures in brackets indicate the percentage of the total patients in each group discharged with their disease in the condition stated at the head of the column.

It is of interest to record that of the 39 children discharged in the pulmonary group, 34, or 87.1 per cent., were either quiescent or improved on discharge; and of the 44 children discharged in the non-pulmonary group, 41, or 93.2 per cent., were either quiescent or improved on discharge.

Of the 43 adult patients discharged, 36, or 83.7 per cent., were quiescent or improved on discharge.

The children who died were in residence for 488 days, 362 days, 49 days, 189 days, 685 days respectively. The cause of death was:—

- (1) Tuberculous disease of the hip joint with secondarily infected sinuses.
- (2) Tuberculous disease of the hip joint and meningitis.
- (3) Pulmonary tuberculosis.
- (4) Pulmonary tuberculosis.
- (5) Pulmonary tuberculosis.

ADULT SECTION OF THE SANATORIUM.

In residence on 1st January, 1938	.. .. .	51
Admitted	.. .. .	46
Discharged	.. .. .	44
Died	.. .. .	4
In residence on 1st January, 1939	.. .. .	49

The more important aspects of general and special treatment have been reviewed in previous reports. Special treatment adopted as an adjuvant to general treatment is summarised later in the report.

Duration of Treatment.

The following table shows the average duration of treatment from 1932 to 1938 :—

TABLE 6.

Duration of Treatment					
	Under 3 months	3—6 months	6—12 months	Over 12 months	Total Discharges
1932	25	42	15	15	97
1933	25	37	31	4	97
1934	17	29	21	12	79
1935	10	24	10	17	61
1936	14	15	18	11	58
1937	9	14	8	18	49
1938	11	13	10	14	48

The average duration of treatment of patients discharged during 1938 was 304 days.

Handicraft Centre.

A list of the more important splints made is appended :—

Abergele frames for the treatment of hip joint tuberculosis	8
Supports for plaster shells	8
Celluloid jackets	9
Pattens (special)	6
Liston splints.. .. .	3

Special Treatment.

Pneumothorax.

Air replacement of pleural effusion	6
Successful inductions	—
Unsuccessful inductions	3
Refills	130
Thoracoplasty	1
Extra pleural pneumothorax	1

Gold Salts.

Crisalbine has been used alone or in conjunction with artificial pneumothorax in 21 cases.

X-Ray Work.

The following table shows the number of radiograms taken during the year :—

Lung (antero-posterior)	111
Lipiodol	3
Non-pulmonary	6
	<hr/>
Radiograms	120
	<hr/>
Pulmonary Radioscopy	<u>593</u>

A pulmonary radiogram is taken of each patient on admission and thereafter the patient is screened at intervals of six weeks.

Laboratory Work.

A list is appended of specimens examined and other work done in the laboratory during the year :—

Sputum—Ordinary examination (Ziehl-Neelsen)	523
„ Concentration (Pottenger)	29
Inoculation (Lowenstein-Jensen medium)—	
Sputum	8
Gastric contents	4
Pleural fluid	3
Fæces	1
Urine	1
Pus	1
Blood counts	4
Urine	3

Results of Treatment.

Weight Records.

The following table shows the weight records of patients discharged during the year. The records show in a general way the response made by these patients to the regimen of treatment:—

TABLE 7.

Total Discharges	Gain in Weight				Stationary	Loss in Weight
	1—6 lbs.	7—13lbs.	14—19 lbs.	20 lbs. & over		1—6 lbs.
44	15 (34.0%)	14 (31.8%)	7 (15.8%)	2 (4.7%)	4 (9.0%)	2 (4.7%)

The table shows that of 44 patients discharged during the year, 38 or 86.3 per cent. gained in weight, and 6, or 13.7 per cent. were either stationary or lost weight.

Patients Discharged as "Quiescent" or "Improved."

The duration of treatment depends on the response of the individual patient. On discharge it is desired that the general condition of the patient should be satisfactory, that the temperature and pulse records should be within normal limits, and that the clinical signs and the result of radiological and other ancillary examinations denote inactive disease. In the case of 36, or 83.7 per cent., of the patients discharged during the year, these postulates have been attained.

General Notes.

Library.

The library, opened during 1935, has been a conspicuous success. The library now consists of five hundred volumes, and books are issued daily to bed patients and twice a week to ambulant patients.

Rest Shelter.

In pursuance of the scheme for the replacement of the existing rest shelters, which are not in a good state of repair, a new shelter was erected during the year.

Religious Services.

The Rev. H. R. Hughes, M.A., Rural Dean of Abergele, and the Rev. Father Donnelly, of Rhyl, and ministers of the Nonconformist churches have held regular services throughout the year. These services have been greatly appreciated by the staff and patients. I desire to record our appreciation of this work.

CHILDREN'S SECTION OF THE SANATORIUM, 1931—1938

The children's section of the sanatorium was opened in June, 1931, and during the period of seven-and-a-half years 583 children have been discharged. The result of treatment in these children is shown in the following table :—

TABLE 8.

	No. of Cases Discharged	Quiescent	Improved	Stationary	Worse	Died
Pulmonary .	262	156 (59·5%)	77 (29·4%)	8 (3·0%)	2 (0·8%)	19 (7·3%)
Non-pulmonary	321	239 (74·4%)	46 (14·4%)	17 (5·3%)	4 (1·3%)	15 (4·6%)
Total	583	395 (67·8%)	123 (21·1%)	25 (4·3%)	6 (1·0%)	34 (5·8%)

The figures in brackets indicate the percentage of the total patients in each group discharged with their disease in the condition stated at the head of the column. Of 583 children discharged, 518, or 88·9 per cent., were either quiescent or improved on discharge.

Of the 262 pulmonary cases 88·9 per cent., and of the 321 non-pulmonary cases 88·8 per cent., were quiescent or improved on discharge.

The terms "quiescent" and "improved" are used because it is impracticable to adopt the classification "cured," but in each of these 518 children discharged as "quiescent" or "improved" there was an absence of all clinical signs of activity of the disease. The final verdict will be passed after they have been under dispensary supervision for a requisite period.

Children's Section, 1938.

In residence on 1st January, 1938	194
Admitted	84
Discharged	79
Died	5
In residence on 1st January, 1939	194

General Treatment.

Non-pulmonary Tuberculosis.

Local treatment without concurrent general treatment is most likely to be productive of bad results. Heliotherapy is an essential factor in the treatment of non-pulmonary tuberculosis. The sunshine hours, the rainfall, and the temperature constitute the more important climatic features from the physiological aspect. The sunshine hours, rainfall, and temperature for 1938 for North Wales and Manchester are appended for comparison:—

	Sunshine Hours		Rainfall in Inches		Mean Temperature	
	North Wales	Manchester	North Wales	Manchester	North Wales	Manchester
January	51·7	22·01	3·54	3·83	44·2	43·3
February	58·5	37·80	0·64	1·07	43·5	42·7
March	131·1	89·59	1·15	1·09	49·1	49·3
April	216·2	110·10	0·17	0·31	46·2	46·6
May	171·1	138·88	2·06	3·43	51·7	52·5
June	171·7	127·20	2·69	3·60	56·7	57·8
July	147·3	101·68	2·25	4·48	58·3	58·9
August	161·3	137·02	3·46	2·54	60·4	61·1
September	93·1	76·80	2·32	1·83	56·7	57·4
October	101·5	71·30	3·51	6·15	53·0	51·3
November	96·8	54·30	3·17	4·10	50·3	49·2
December	51·2	21·39	3·35	3·56	42·4	40·6
Totals	1451·5	988·07	28·31	35·99	51·0	50·9 Average

(We are indebted to the Medical Officer of Health, Rhyl, for the North Wales records.)

The following table shows the weight records of the children discharged during the year. These records show in a general way the response made by the children to the regimen of treatment :—

TABLE 9.

Total Discharges	Gain in Weight				Stationary	Loss in Weight	
	1—6 lbs.	7—13lbs.	14—19 lbs.	20 lbs. & over		1—6 lbs.	7—14lbs.
79	2 (2·5%)	12 (15·2%)	19 (24·0%)	41 (51·9%)	3 (3·8%)	1 (1·3%)	1 (1·3%)

The figures in brackets indicate the percentage of the total children discharged, with a weight record as stated at the head of each column.

The table shows that of 79 children discharged 74, or 93·6 per cent., gained in weight, and of this number 60, or 75·9 per cent., gained over 14 pounds ; 5, or 6·4 per cent., did not gain weight.

Local Treatment.

Non-pulmonary Tuberculosis.

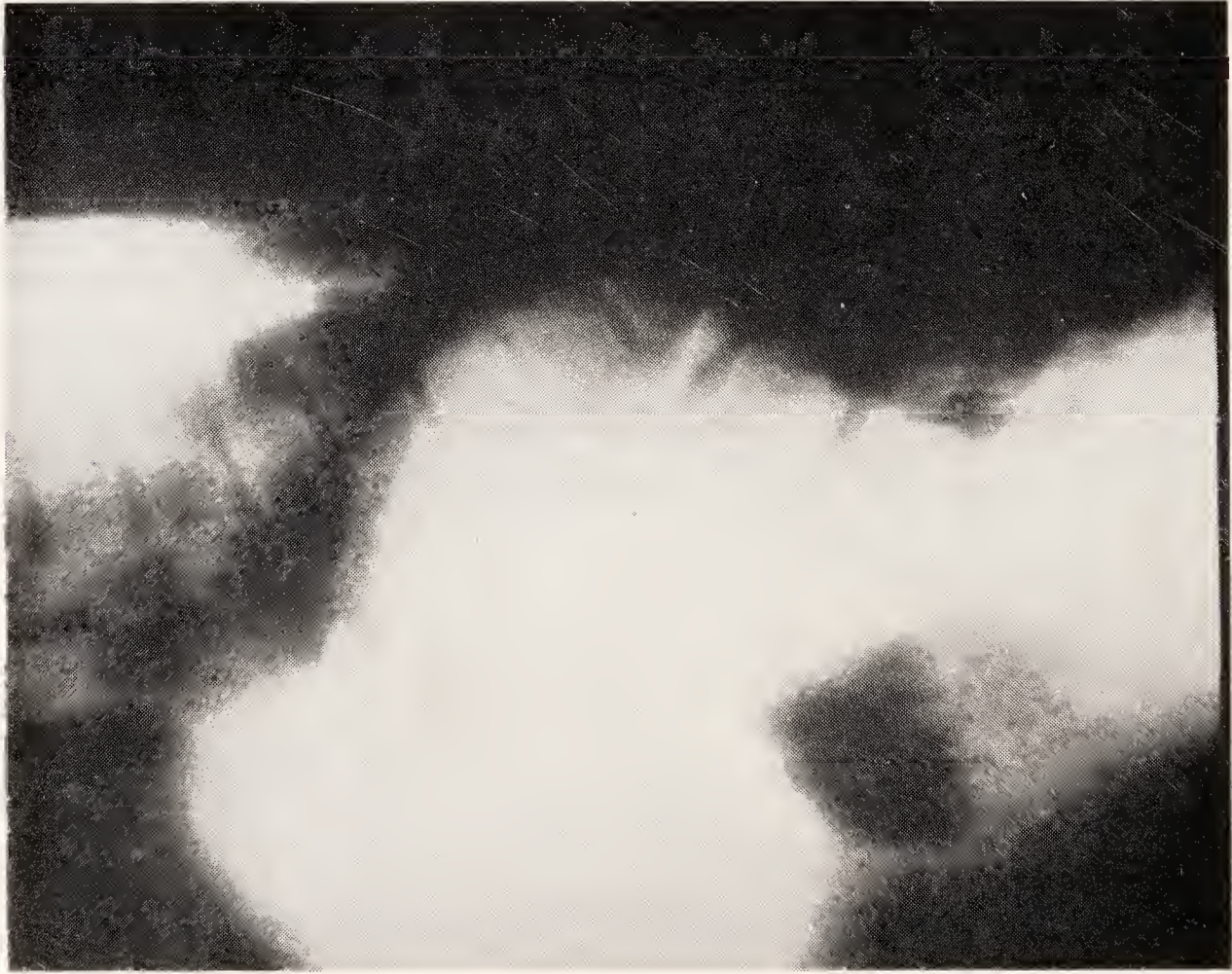
Reference has been made in previous reports to the methods used in the treatment of bone and joint tuberculosis, and splints devised for the treatment of disease of the hip joint and spinal column, have been described. These splints are in regular use and have proved to be effective.

The method of application of plaster of paris splints described in a previous report by the use of slabs has been continued.

Tomography.

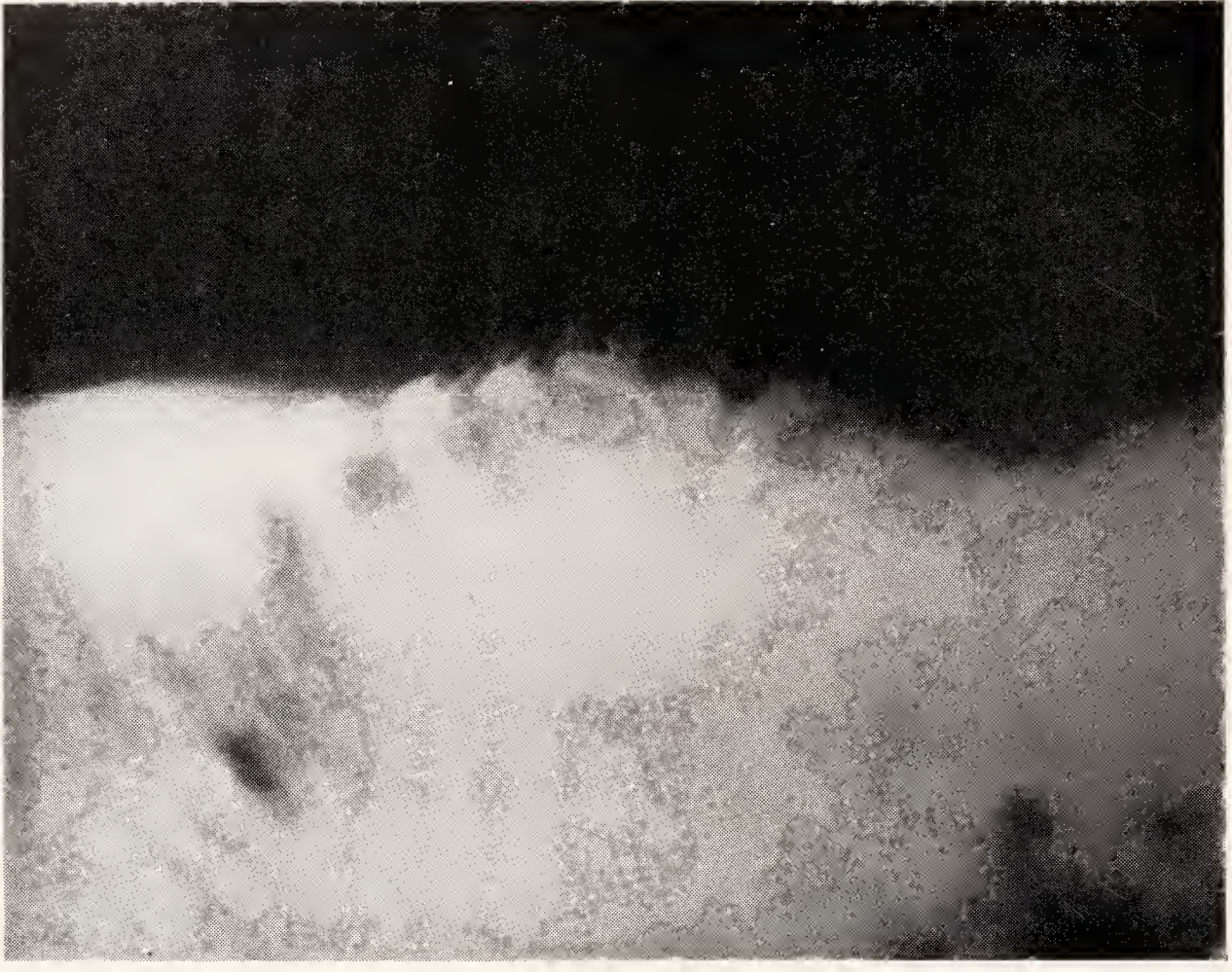
Tomography is a method of X-ray examination which has recently been introduced. The usual pulmonary radiogram is composed of a series of superimposed shadows of all the thoracic structures in the line of the X-rays. The radiogram is, therefore, a composite "picture" of these shadows. Tomography is a method of selective radiography which gives a "picture" of one particular layer of the body to the exclusion of all matter lying above or below that layer. Its value has been shown in the demonstration of pulmonary cavities obscured in the ordinary radiogram by the superimposition of other shadows.

Lateral Tomograph of Spine.



Detail of vertebral bodies improved by the elimination of the shadows of the ribs.

Radiogram.



Detail of vertebral bodies partially obscured by the shadow of the ribs.

Lateral radiograms of the dorsal segment of the spine are obscured by the superimposed shadow of the ribs. It is difficult to secure a satisfactory radiogram of the dorsal vertebræ because of this factor. Tomography has improved the value of radiological examination in tuberculosis of the dorsal spine. A radiogram and a tomogram are reproduced to illustrate the value of this new method. In the radiogram the detail of the vertebral bodies is obscured by the superimposed rib shadows, but in the tomogram these shadows have been eliminated with an increased definition of the vertebral bodies. The tomographic apparatus in use at present is very much a "home-made" model but the results so far obtained are, in lateral radiograms of the dorsal spine, of definite value.

Splint Making.

Table 10 shows the number of splints constructed during the year:—

TABLE 10.

Plaster spica	121
Ankle and knee plasters	23
Wrist plasters	7
Plaster beds (anterior and posterior)	8
Plaster jackets	14
Celluloid splints	9
Special Abergele frame for the treatment of hip joint disease	8
	190

X-Ray Work.

The process of healing and bone repair at all stages is observed by serial radiograms. Ambulatory treatment is not commenced until all symptoms have disappeared, and the radiogram shows that new bone formation has taken place to a satisfactory degree.

Table 11 shows the number of radiograms taken during the year:—

TABLE 11.

Spine	159
Hip joint and pelvis	123
Knee and ankle joint	66
Other bones and joints	21
Pyelograms	14
Barium meals	4
	387

The number of operations performed during the year was as follows :—

Excision of knee joint.. .. .	1
Arthrodesis of hip joint	8
Excision glands of neck	1
Cystoscopy	1
Nephrectomy	1
Phrenic crush	4
Resection of ribs	1
Minor operations	8
	25
Total	25

I desire to record the very great advantage derived from the visits of Mr. E. D. Telford, Consulting Surgeon to the Sanatorium.

Massage Department.

The end results in the treatment of bone and joint tuberculosis must be judged by the ability of the child to walk. The condition of the diseased joint is not the sole factor. The stability of healthy joints and tone of the general musculature, if good, are the ancillary factors which will furnish a satisfactory conclusion to treatment.

The results of treatment in respect of bone and joint cases discharged during the year are shown in Table 12, in which particular reference is made to the ambulatory efficiency.

A summary of work carried out in the department is shown below :—

Number of ambulant children who attended classes for general exercises	39
Number of bedfast children who received individual massage and exercises	39
Number of children who received electro-medical treatment	11
Number of children who underwent " table exercises " ..	9
Number of children who received artificial sunlight	23

Table Exercises.

The exercises referred to as " table exercises " are devised particularly for pre-ambulant cases of spinal tuberculosis. The exercises are given on a special table and have as their objective the improvement of the muscles of the trunk. The developed muscular system provides the child with a solid muscular corset, which plays an important part in maintaining the correction obtained and reducing the tendency to secondary spinal deformities.

Photography.

Photographic records are now taken as a routine of all patients on admission and on discharge. This work is undertaken by the massage sister, and during the year 355 photographs were taken.

TABLE 12.
Analysis of Discharged Cases.

LOCATION OF DISEASE	Number of discharges	Sound Ankylosis	Ankylosis not complete but position good	Free mobility of joint	Small spinal gibbosity with efficient compensatory spinal curves	Large gibbosity with efficient compensatory spinal curves	Ambulation			REMARKS	
							Satisfactory	Poor	Not tested		
Hip joint... ..	2	+	-	-	-	-	+	-	-	Q.—Quiescent.	
		-	-	-	-	-	-	-	-	I.—Improved.	
	7	-	+	-	-	-	-	-	-	W.—Worse.	
		-	+	-	-	-	-	+	-	-	D.—Died.
		-	-	-	-	-	-	-	-	-	Q.
Knee joint	5	-	-	+	-	-	+	-	-	D.—Tuberculous meningitis.	
		-	+	-	-	-	-	+	-	-	D.—Secondary infection with sinus formation.
	1	-	+	-	-	-	-	-	-	I.—Treatment not completed transferred to Leasowe Hospital.	
Spine	7	+	-	-	+	-	+	-	-	Q.	
		+	-	-	-	-	+	+	-	-	I.
	1	+	-	-	-	-	+	+	-	-	Q.
Ankle	1	-	-	+	-	-	+	-	-	Q.	

"Satisfactory" indicates that the ability to walk is such as to meet effectively all the ordinary requirements of daily life. Excluded from this table are two patients who were transferred to Monsall Hospital for treatment for diphtheria.

Special Treatment.

Pulmonary Tuberculosis.

Gold Salt Therapy.

Crisalbine or myocrisin was administered in six cases.

The number of pulmonary radiograms taken during the year was 173 pulmonary (antero-posterior and oblique) and 16 lipiodal radiograms.

Lipiodal Technique.

Bronchograms.

Various methods have been used for the injection of lipiodal into the bronchi. Direct injection through the crico-thyroid membrane is the method usually adopted. It is convenient but may be difficult in children. The following method to which our attention was directed in August is simpler and as efficient. The lipiodal is injected into a nostril after preliminary anæsthetisation of the nostril, pharynx, and larynx. The patient sits in the upright position and the protruded tongue is grasped firmly by the operator. An ordinary 10 c.c. record syringe is used for anæsthetisation and for the injection of the lipiodal. The anæsthetic is injected into the nostril with the tongue firmly held. Deglutition is thereby made impossible and the resulting anæsthetisation of the larynx is effective. The lipiodal is injected into the anæsthetised nostril and with the tongue again firmly held. This method has been used with the minimum discomfort to the child and the resulting bronchograms have been satisfactory.

The following table shows the radiological findings in 20 of the 33 T.B. minus children admitted during the year :—

TABLE 13.

Tracheo-bronchial glands	4
Primary pulmonary complex	2
Infiltration of lung parenchyma	10
Pleurisy	1
Epituberculosis	3
Total	<u>20</u>

Laboratory Work.

A list is appended of the specimens examined in the laboratory during the year:—

	Children	Staff
Sputum—Ordinary examination (Ziehl-Neelsen)	145	2
Sputum—Concentration (Pottenger)	80	—
Urine—Ordinary	53	89
Blood counts	12	2
Blood calcium	—	2
Inoculation (Lowenstein-Jensen medium)—		
(1) Sputum	20	1
(2) Gastric contents	122	—
(3) Pleural fluid	5	—
(4) Fæces	9	—
(5) Urine.. .. .	17	—
(6) Pus	30	—
(7) Cerebro-spinal fluid	1	—
(8) Various	3	—
	—	—
Totals	497	96
	—	—
Inoculation—animal	23	

Immunisation.

Children admitted during the year, with the exception of cases of active pulmonary tuberculosis, have been immunised against diphtheria. Toxoid-antitoxin floccules (T.A.F.) were used. Children over ten are Schick tested before immunisation. The immunisation of children on admission has been adopted as a routine.

Dental Treatment.

The dental surgeon (Mr. A. Smith, L.D.S.) visits the sanatorium once a week, and in addition to the work detailed below he instructs the children at regular intervals on the proper care of the teeth.

The following table shows the condition of the teeth of the children admitted during the year :—

TABLE 14.

Age Group	All Teeth in Good Condition	One to Four Defective Teeth	Over Four Defective Teeth
1—6	19	8	1
7—15	22	28	7
Totals	41	36	8

Summary of dental work performed during the year :—

Visits	48
Extractions	344
Fillings	174
Scalings	22
Impressions	8

The figures in the summary include dental treatment for adult patients.

Nursing Staff.

Miss E. J. Knowles, Matron.

It is again necessary to record the difficulties which have been experienced during the year in the recruitment of staff. The work of the sanatorium has been made more difficult by the shortness of staff, and the responsibilities of Miss Knowles correspondingly increased.

School.

Miss M. C. T. Evans, Head Mistress.

Staff: Headmistress; seven assistant teachers.

Statistics.

Number on school register on 1st January, 1938 ..	191
Admitted	86
Discharged	93
Number on school register on 31st December, 1938.. ..	184

The general organisation and curriculum remain as for the previous year.

The work of the school has been advanced by the constant interest and help of Mr. Stevenson, Chief Inspector to the Manchester Education Committee. During the year the school has been visited by members

of Mr. Stevenson's staff ; the value of these visits cannot be overstated. Mr. Peacock, has for example, given very freely of his time to inspect and direct the work of the manual centre.

Scholarship—The school is now an approved centre for the Manchester Elementary School Scholarship Examination for admission to Secondary and Central Schools. The results for 1938 were as follows :—

Number of children who entered	10
Number of children who passed for Secondary Schools..	4
Number of children who passed for Central Schools ..	3
Number of children who failed to reach the required standard	3

Library—A further collection of books was received during the year. The books are distributed twice weekly, and the average number issued per distribution was 151.

Films—Educational films have been shown in the wards regularly throughout the winter months. The films projected were illustrative of animal and plant life, home and foreign industries, and travel by land, sea, and air.

Scouts and Guides.

The Scout and Guide Companies, and the Brownie and Cub Packs continue to be a source of interest among the children. The results gained in the various tests and competitions were very satisfactory and demonstrate the keenness of the members of the companies. The camp was used regularly during the summer months and, in spite of inclement weather, 55 children spent from 3 to 7 days in camp. The children greatly appreciate these days of complete freedom away from the routine of hospital life.

Farm.

The farm and forest work is controlled by Mr. Bell.

The farm consists of Pen-yr-allt, Ysgeiriallt, and Gwreiddyn.

The work of the farm is concerned chiefly with the supply of milk and late potatoes for the sanatorium. Other crops produced on the farm are grown with the object of feeding the livestock maintained. The number of cows in milk is maintained at 40, but with heifers, yearling animals, and calves, the number of cattle averages 80.

The activities of the pig farm are ancillary to the main work of the farm, and are of importance as they afford an economical method for the disposal of hospital swill.

Heifer Shed.

The accommodation for heifers is not satisfactory and the House Sub-Committee considered a plan for the provision of a shippon at Pen-yr-allt Farm. The erection of the shippon, has, however, again been delayed on account of the financial stringency.

The quantity and approximate value of transfers from the farm during the year were as follows:—

Milk	27,732 gallons.
Potatoes	22 tons.

Approximate value of transfers, £2,389 19s. 7d.

Afforestation.

During the year the Brynian Valley was planted and the marsh extending to about two acres in the Ysgeiriallt Valley was drained and planted. The following trees were planted in the Brynian Valley:—

6,000 Sitka Spruce.
6,000 Norway Spruce.
2,000 E. Larch.
2,000 Scots Fir.
500 Sycamore.

Kitchen Garden.

The work of the kitchen garden and of the grounds of the sanatorium is under the control of Mr. W. Rawson.

The value and amount of transfers from the garden is shown below. The value of transfers for 1937 was £506.

Apples	7,227 lbs.	Tomatoes	853 lbs.
Beet	1,837 lbs.	Lettuce	261 doz.
Beans—French	831 lbs.	Marrows	745 lbs.
Beans—Broad	2,558 lbs.	Herbs	1,095 bunches.
Black Currants	44 lbs.	Onions	2,295 lbs.
Broccoli and Cauliflowers	304 doz.	Parsnips	1,319 lbs.
Celery	126 doz.	Peas	1,524 lbs.
Cucumbers	86 doz.	Pears	50 lbs.
Cabbages—Savoys	970 doz.	Potatoes	26,992 lbs.
Gooseberries	369 lbs.	Rhubarb	843 lbs.
Kale (Greens)	1,074 lbs.	Radishes	375 bunches.
Turnips	66 lbs.	Raspberries	154 lbs.
		Sprouts	1,976 lbs.

Approximate value of transfers—£553.

BAGULEY SANATORIUM.

Report for Year ended 31st December, 1938.

By Dr. H. G. Trayer, Medical Superintendent.

The number of available beds was (average) 335.

The number of patients admitted was 460, the daily average number of beds occupied being 329·22.

The following table gives the number of admissions, discharges, etc., for the year 1938, compared with the previous four years :—

	1934	1935	1936	1937	1938
Number of patients :—					
In hospital, 1st January	307	330	320	318	329
Admitted during the year	641	583	511	540	460
Discharged during the year	470	477	404	422	387
Died during the year	148	116	109	107	85
Total treated during the year ..	948	913	831	858	789
Remaining in hospital, 31st Dec.	330	320	318	329	317
Daily average number of beds occupied	326·67	334·37	330·92	329·64	329·22
Average length of stay of patients discharged :—					
Males (days)	176·57	165·75	178·76	187·01	228·79
Females „	248·2	184·36	219·4	245·37	270·62
Average length of time in hospital of fatal cases :—					
Males (days)	287·38	276·74	282·88	289·44	305·98
Females „	235·75	322·39	374·19	338·78	266·88
Case mortality	15·61	12·71	13·12	12·7	10·77

Cases admitted from the districts of the Bucklow Joint Hospital Board are included in all totals given in this report. The details of such cases are :—

On January 1st, there were five patients in the Sanatorium ; seven patients were admitted during the period, three patients were discharged, and five died ; four patients remained in the hospital on December 31st.

Pathological Laboratory Report :—

Number of specimens of sputum examined	2,177
Number of specimens found to be positive	959
Number of specimens found to be negative	1,218

Other examinations :—	Number	Result	
		Positive	Negative
Special examination of urine ..	2	—	2
Pleural effusion	9	1	8
Pus	9	1	8

During the year a large number of special examinations were carried out by the Public Health Laboratory.

Blood Sedimentations.

This test has proved to be of great value, and the number carried out during the year was 1,372, which is a considerable increase over previous years, despite the fact that the total number of patients treated during the year has decreased.

X-Ray Report :—

Number of patients screened.. .. .	1,492
Number of skiagrams taken	828

Dental Report.

Number of attendances	414
Extractions.. .. .	371
Fillings	37
Scraping and cleaning	13
Dentures	12
Repairs and adjustments to dentures	10

The dentist has also paid numerous visits to the wards for the purpose of examining the mouths of bed-patients.

Patients are gradually becoming more desirous of accepting conservative dental treatment. The number of fillings are showing an upward tendency.

Classification on Admission	Age at Discharge	Condition on Discharge	Duration of Stay								Total	Positive Sputum on Admission— Negative on Discharge
			Under 3 months		3—6 months		6—12 months		More than 12 months			
			M.	F.	M.	F.	M.	F.	M.	F.		
CLASS T.B. PLUS GROUP II.	Ages 15—24	Quiescent	1	..	1	1	3	19
		Improved ..	2	2	2	4	4	..	7	12	33	
		Stationary ..	2	3	..	..	..	..	1	1	7
		Worse ..	..	1	..	3	2	1	..	..	7
		Died ..	..	1	..	2	1	3	1	1	9
	Ages 25—34	Quiescent	23
		Improved ..	14	7	8	4	6	4	10	7	60	
		Stationary ..	4	2	1	1	1	..	1	1	11	
		Worse ..	..	1	1	1	2	..	..	1	6
		Died ..	..	..	..	..	3	2	2	5	12
	Ages 35—44	Quiescent	21
		Improved ..	9	..	4	2	2	3	10	6	36	
		Stationary ..	6	1	..	2	..	..	2	..	11
		Worse ..	..	..	2	..	..	..	..	1	3
		Died ..	..	..	2	..	..	1	..	..	3
	Ages 45—54	Quiescent ..	1	1	5
		Improved ..	5	1	2	1	5	1	2	2	19	
		Stationary ..	5	1	1	..	..	..	..	..	7
		Worse ..	..	..	1	1	..	..	..	..	2
		Died ..	1	..	..	..	1	..	1	..	3
	Ages 55 and over	Quiescent	7
Improved ..		2	2	2	..	2	1	..	..	9	
Stationary ..		3	1	..	..	..	..	1	..	5	
Worse ..		1	..	..	..	..	..	..	..	1	
Died ..		..	..	..	..	..	..	1	..	1	

Classification on Admission	Age at Discharge	Condition on Discharge	Duration of Stay								Total	Positive Sputum on Admission— Negative on Discharge	
			Under 3 months		3—6 months		6—12 months		More than 12 months				
			M.	F.	M.	F.	M.	F.	M.	F.			
CLASS T.B. PLUS GROUP III.	Ages 15—24	Quiescent	4
		Improved ..	..	..	1	1	1	..	1	1	5
		Stationary ..	..	..	..	..	..	1	1	..	2
		Worse ..	..	1	..	1	..	1	..	..	3
		Died ..	1	7	3	2	..	2	1	1	17		
	Ages 25—34	Quiescent ..	1	1	7	
		Improved ..	2	2	2	1	..	2	2	1	12		
		Stationary ..	..	2	..	..	1	1	1	1	6
		Worse ..	2	2	..	1	..	..	..	1	6
		Died ..	1	2	..	2	..	..	4	1	10
	Ages 35—44	Quiescent	3	
		Improved ..	1	..	..	4	..	..	1	2	8
		Stationary ..	2	1	1	..	..	..	1	..	5
		Worse ..	..	..	..	..	..	..	..	..	..
		Died ..	5	2	2	1	..	1	..	..	11
	Ages 45—54	Quiescent	5	
		Improved ..	1	..	3	..	1	1	..	..	6
		Stationary ..	1	..	..	..	..	..	1	..	2
		Worse ..	1	..	..	..	..	..	..	..	1
		Died ..	8	..	..	1	1	..	..	..	10
Ages 55 and over	Quiescent ..	..	..	..	..	..	..	..	..	..	5
	Improved ..	1	..	1	..	1	1	2	..	6			
	Stationary ..	1	1	2	..	..	..	..	..	4	
	Worse ..	..	..	..	..	..	..	..	..	..
	Died ..	..	1	..	..	..	..	1	..	2	

Summary of Tables.

Classification	Condition on Discharge				
	Quiescent	Improved	Stationary	Worse	Died
Class T.B. Minus	16	48	12	2	7
„ T.B. Plus, Group I.	1	7	..	..	..
„ T.B. Plus, Group II.	4	157	41	19	28
„ T.B. Plus, Group III.	1	37	19	10	50
Totals	22	249	72	31	85

Observation Cases.

Diagnosis on Discharge from Observation	Stay under four weeks		Stay over four weeks		Totals	
	M.	F.	M.	F.	M.	F.
Tuberculous	3	1	17	13	20	14
Non-Tuberculous	1	..	2	4	3	4
Doubtful	4	2	..	..	4	2

Seven deaths occurred among cases appearing under the classification T.B. Minus. The particulars in respect of these deaths are as follows :—

Age	Sex		
51	M.	Carcinoma right bronchus	Clinical and radiological findings. Post-mortem examination refused.
37	M.	Pulmonary Tuberculosis	
22	M.	Pulmonary Tuberculosis	
35	M.	Carcinoma pancreas	Post-mortem examination
44	F.	Tuberculosis upper dorsal spine : tuberculosis of kidneys	Clinical and radiological findings. Post-mortem examination refused.
18	F.	Pulmonary Tuberculosis	
21	F.	Pulmonary Tuberculosis	

Patients.

The usual lectures on elementary hygiene and preventive measures have been given to up-patients.

There has been no diminution in the number of bed patients, and the broadcast talks are now an established weekly or fortnightly feature of the routine.

The decrease in the number of patients reaching the higher and heavier grades of graduated exercise shows no sign of improving. The fear expressed in last year's report is confirmed, and it will be necessary to consider the provision of additional staff.

Occupational Therapy.

Occupational therapy still proves to be of the greatest value to all patients on six or more hours up.

It has again to be recorded that any hope of developing a scheme for ex-patients appears to be as far off as ever.

The magazine "San Toy" still occupies its important place in the life of this community, and it also brings pleasure to many of the staff and patients in other hospitals.

Recreation.

Opportunity is again taken of expressing sincere and grateful thanks to all those who have so willingly given their services in entertaining the patients. These entertainments have been of a high standard and have been very much appreciated.

Staff.

Four members of the Nursing Staff were successful in obtaining the Certificate of the Tuberculosis Association.

One of the problems associated with the staff is the maintenance of physical fitness. It has not yet been possible to introduce a scheme of physical culture that could become part of their curriculum. There appears to be a wide scope for physical training, and there is no doubt that if it was part of the normal routine of life, the individual and the sanatorium would benefit considerably.

The difficulties of recruitment for the Nursing Staff are still acute.

Extension.

The extensions to the Sanatorium were started early in the year and are making good progress.

In conclusion, I would record my personal appreciation of the loyal and willing service rendered by all members of the staff throughout the year.

BOOTH HALL HOSPITAL.

Report for the Year ended 31st December, 1938.

By Dr. W. H. Patterson, Medical Superintendent.

Statistics.

	1938	1937
Total number treated	6,968	7,281
Number of admissions	6,157	6,561
Duration of stay (days)	24·84	24·55
Deaths (all ages)	407	439

Calendar Month Admission Rate:—

January	563
February	507
March	629
April	568
May	589
June	436
July	429
August	388
September	443
October	517
November	668
December	420

Age Groups of Admissions:—

Under 1 month	83
1 month to 1 year	778
1 to 2 years	649
2 to 5 years	1,347
5 to 8 years	1,219
8 to 12 years	1,102
12 to 14 years	506
14 to 15 years	370
16 years and over	103

Of the 861 admissions under 1 year there were 215 deaths.

*Departments.**Casualty and After-care Department:—*

Number of casualties	670
Patients subsequently admitted	260
Transferred to adult hospitals	24
Re-attendances	1,177
Road accidents	134
Burns and scalds	138

The department is increasingly used for the further observation of discharged in-patients who might otherwise occupy a bed.

Surgical Departments:—

Number of operations performed in Theatre	2,058
General surgical emergencies	214
Abdominal sections	250
General anæsthetics administered	1,916
Spinal anæsthetics	117

There is no material difference from the 1937 figures, except in the case of spinal anæsthetics. In selected cases this appears to be a satisfactory form of anæsthesia in children, and it has been used in 100 more cases than in 1937.

Ear, Nose, and Throat Department:—

Number of patients examined by Aurist	1,821
Number specially examined in wards	309
Tonsil and adenoid operations (Hospital Aurist) ..	629
Tonsil and adenoid operations (Education Authority's Aurists)	534

Ophthalmic Department:—

There were 83 patients seen by the Ophthalmic Surgeon, with 250 attendances.

Dental Department:—

Total number of children inspected	2,612
--	-------

Of the inspected children 53 per cent. received treatment, much of the work being of a conservative nature. Co-operation in treatment between the dental and the medical and surgical departments has been productive of very satisfactory results.

X-Ray Department:—

There were 2,842 patients radiographed; 4,331 films were exposed.

Physiotherapy Department:—

Ultra-violet Light treatments —	6,970 for 434 patients.
Massage treatments —	5,854 for 307 patients.
Electrical treatments —	499 for 31 patients.

Medical Department:—

The following details are abstracted from the wide variety of medical conditions as being of interest:—

LOBAR PNEUMONIA.

Age Groups	Number of Cases	Deaths	Mortality Rate
			Per cent.
1 month to 1 year	21	4	19
1 to 2 years	43	7	16
2 to 5 years	63	4	6
5 to 8 years	64	0	Nil
8 to 12 years	40	1	1.5
12 to 14 years	13	1	7
14 to 16 years	13	0	Nil
All Ages	257	17	6.2

The average monthly admission rate of patients suffering from lobar pneumonia was 21.6, and varied from 35 in May to 9 in September.

BRONCHO-PNEUMONIA (PRIMARY).

Age Groups	Number of Cases	Deaths	Mortality Rate
			Per cent.
Under 1 month	1	0	Nil
1 month to 1 year	96	46	47.9
1 to 2 years	51	16	31
2 to 5 years	50	11	22
5 to 8 years	10	1	10
8 to 12 years	1	0	Nil
12 to 14 years	1	1	100
14 to 16 years	1	0	Nil
All Ages	211	75	35.5

The average monthly admission rate of patients suffering from primary broncho-pneumonia was 18, and varied from 59 in November to 3 in August.

Nursing Staff.

The total nursing staff is 184. Of that 52 are trained nurses, 122 are nurses in training, 10 are partially-trained attendant nurses (non-resident). Fifty-four new students entered during the year, 14 of whom did not continue after the trial period. Fifteen nurses completed training, and, having passed the Hospital and State Final Examination, left to take general training. Twenty-five nurses left for various other reasons.

During the year 185 nurses were absent from duty through sickness. The loss of working days to the hospital was 1,614. The effect of sickness, off-duty days, Preliminary Training School period, and Non-Clinical Staff is often overlooked in estimating the ratio of staff to patients.

Senior Appointments.

Miss A. Probert, Second Assistant Matron, left to take up an overseas appointment.

Miss F. Forster, Sister in the Housekeeping Department, was appointed Second Assistant Matron.

Miss A. House, Surgical Ward Sister, became Sister in the Housekeeping Department.

The Nursing School.

Nurses' Prize-giving Day was held in the Hospital Hall on Saturday, 29th October, 1938, and the medals and prizes were presented by the Lady Mayoress (Miss F. M. Grime), as follows:—

Nurse Annie Swain	.. ..	Gold Medal, Bacteriology and Materia Medica Prize.
Nurse Ruth S. Young	.. ..	Silver Medal.
Nurse Mary Power	.. ..	Practical Nursing Prize.
Nurse Elsie M. Buckley	.. ..	Medical Diseases Prize.
Nurse Bessie Callow	.. ..	Surgical Diseases Prize.
Nurse Muriel E. Pinkerton	.. ..	"First Year Subjects" Prize.

The Hospital Unit of the Student Nurses' Association has had an active year, members taking part in the Manchester inter-hospital tennis tournaments, in the Manchester Swimming Gala, and the College of Nursing Gala held in London. At the Hospital a Games Tournament, Dances, and a Bring-and-Buy Sale were held. Members have attended College of Nursing meetings in London and Leicester, and sent twelve exhibits to the Sister Tutors' Exhibition, and one of these was awarded a first prize. One member went to London to give evidence before the Inter-departmental Committee on the Nursing Services.

Structural Alterations.

The kitchens of Wards 5 and 7 have been remodelled.

Work was begun on the new Milk Laboratory.

CRUMPSALL HOSPITAL.

Report for Year ended 31st December, 1938.

By Dr. W. A. Ramsay, Medical Superintendent.

Beds.

There have been certain changes in the allocation of beds during the past year. Nine additional maternity beds for emergency and complicated cases have been provided, and four beds for cases of puerperal pyrexia. The number of medical beds available has been correspondingly reduced by 24. The total number of beds in use at the end of the year was greater than at the end of 1937, as only two wards instead of the usual three have been vacated for reconstruction. The following shows the arrangement of wards and beds as on the 31st December, 1938:—

Classification of Wards	Number of Wards	BEDS			
		Men	Women	Children	Total
Medical	17 $\frac{3}{4}$	267	187	—	454
Surgical	13 $\frac{1}{4}$	159	167	—	326
Chronic sick	31	193	229	—	422
Children	1	—	—	18	18
Venereal	1 $\frac{1}{2}$	12	15	5	32
Maternity	7	—	121	89	210
Totals	71$\frac{1}{2}$	631	719	112	1,462

Medical Staff.

After four years service at Crumpsall Hospital, Mr. R. J. W. Withers, M.D., M.CH., F.R.C.S., relinquished office as Deputy Medical Superintendent and Resident Surgical Officer on the 31st August, 1938. Dr. D. W. Macartney, M.D., D.P.H., was appointed Deputy Medical Superintendent on the 1st September, 1938, and Mr. M. Haydon Baillie, M.B., F.R.C.S., was appointed Resident Surgical Officer as from the 1st September, 1938.

It is with great regret that I record the tragic death of Mr. Kenneth H. Watkins, Consultant Surgeon to the hospital on the 15th September, 1938. Mr. Watkins had been on the staff of the hospital for over two years, and during that time, by his extraordinary keenness and ability, had created a very efficient genito urinary unit. His place has been taken by Mr. D. S. Poole Wilson, who commenced duty on the 30th January, 1939.

During the year the following gentlemen have been appointed to the staff as Assistant Resident Medical Officers :—

Matthew Crowley, M.B., CH.B.
 Harold Burton, M.A., M.B., CH.B.
 Thomas S. B. Dick, M.B., CH.B.
 Frank B. Bagshaw, M.R.C.S., L.R.C.P.
 Maurice J. M. Heap, M.R.C.S., L.R.C.P.
 John J. Williams, L.R.C.P., L.R.C.S.
 Robert F. Stronge, M.B., CH.B., B.A.O.
 William H. Purves, M.B., CH.B.
 James White, B.Sc., M.B., CH.B.

Nursing Staff.

We have had the same difficulty as other hospitals in obtaining a sufficiency of suitable probationers and staff nurses. It is to be hoped that the changes envisaged in the report of the Athlone Committee will attract larger numbers of suitable young women to the nursing profession.

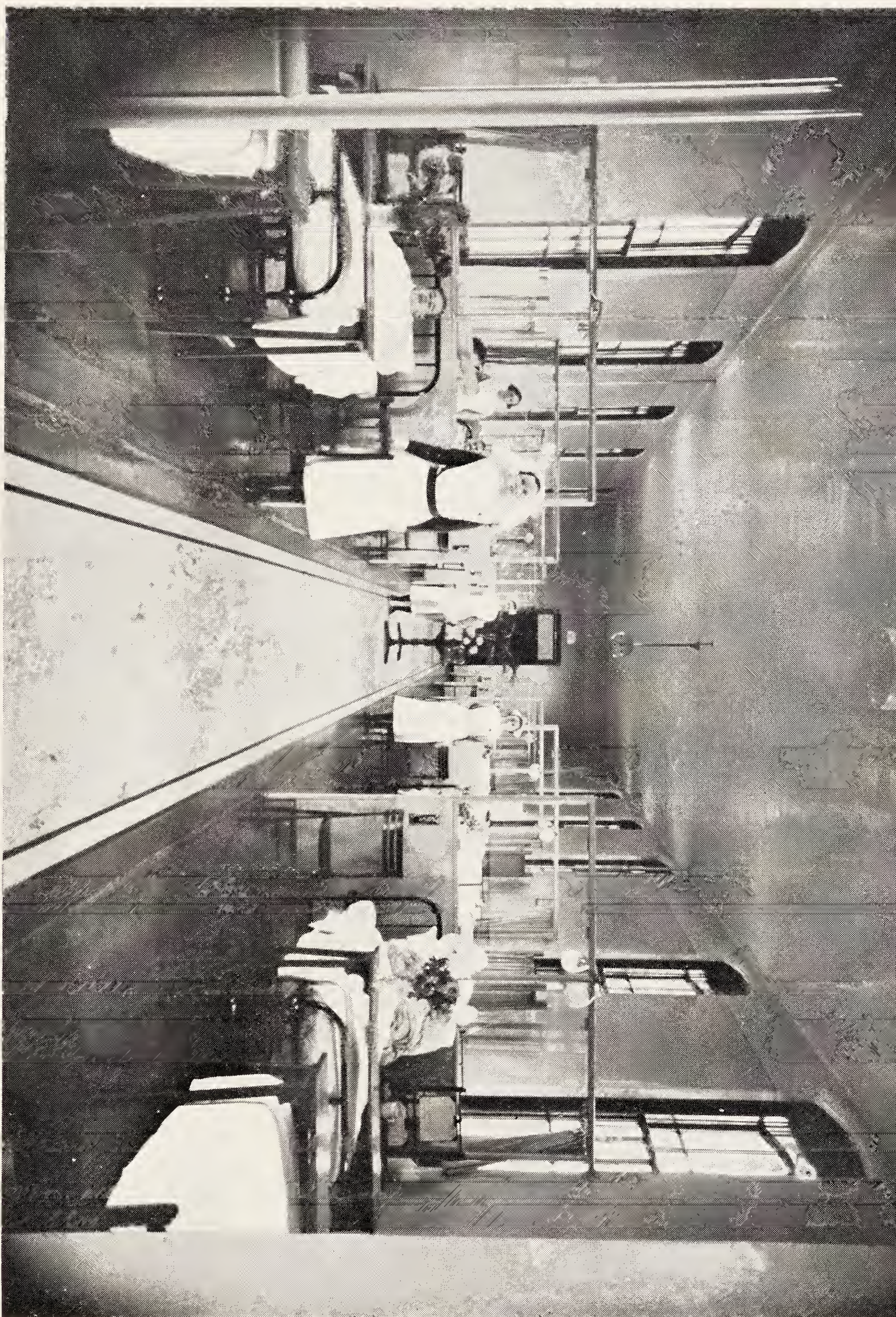
The new scheme of midwifery training which came into force on the 1st September, 1938, has intensified the problems of staffing maternity departments. It may be that difficulties will in the end be smoothed out, but it seems likely that further changes will be necessary.

Additions to the nursing staff during the year comprise another sister in the receiving ward and a sister for the new maternity ward.

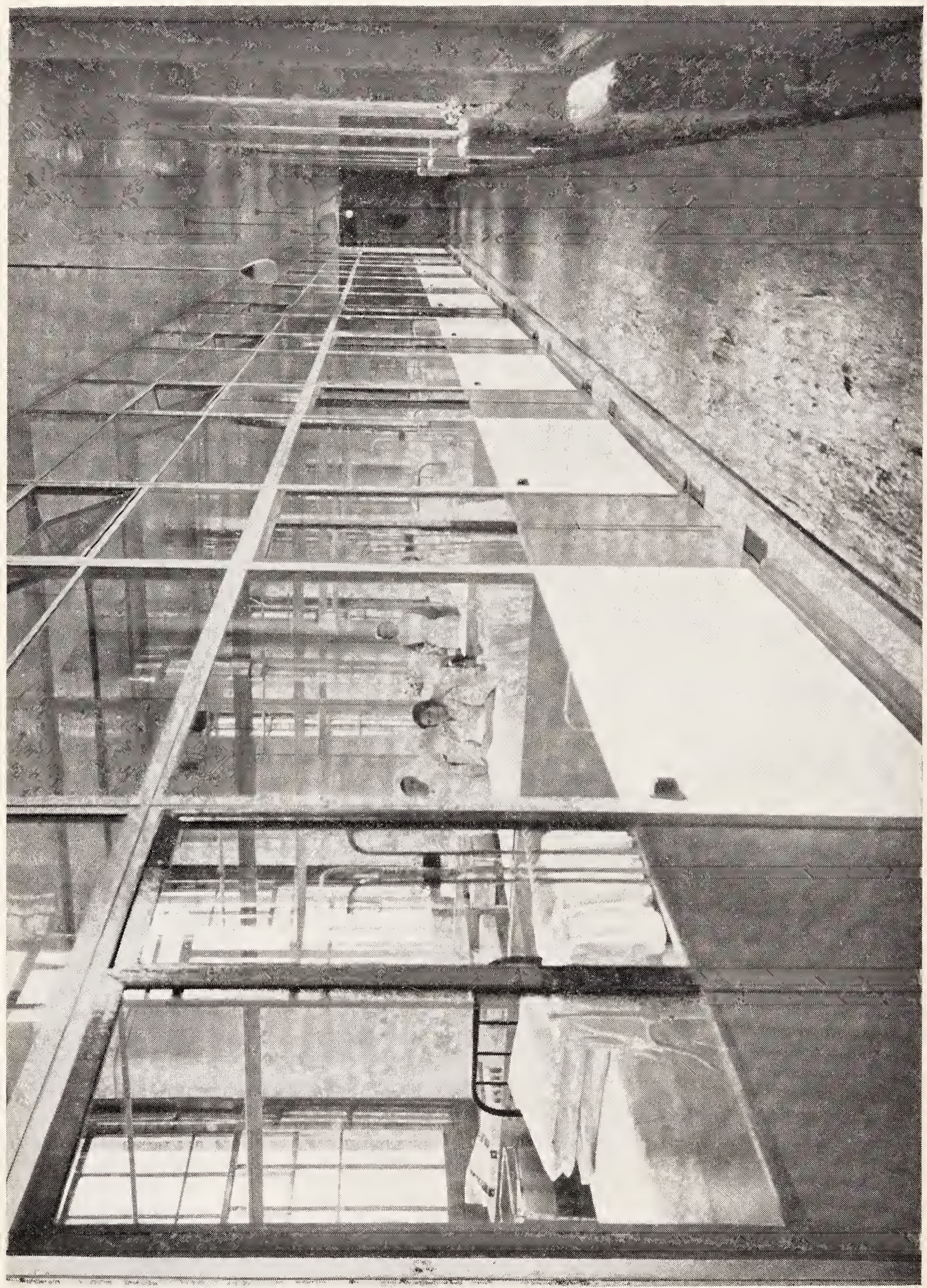
During the year, 94 members of the resident nursing staff and domestic staff were off duty owing to sickness; the average period of disability being 26 days. Of the non-resident nursing staff, 56 were off duty for an average period of 28 days.

The nurses' examination results for the year 1938 are given below :—

	Passed	Failed
Hospital Final Examination	58	Nil
State Final Examination	57	1
State Preliminary Examination	19	3
C.M.B. Examination	30	3
Housekeeping Course	Six pupils took this course, and each gained a Certificate of Proficiency.	



Ward—Crumpsall Hospital (see page 165).



Ward—Crumpsall Hospital (see page 165).

Hospital Library Service.

The Hospital Librarian reports that 728 volumes have been added to the library during the past year, including gifts from the Public Health Committee, the Central Library, and patients and friends of the hospital. Parcels of magazines have been received from the British Red Cross from time to time, and the hospital annexe has been provided with over 1,000 discarded books from the Central Library. Warmest thanks are due to the members of the Toc H and the League of Women Helpers for their painstaking work in distributing the books throughout the hospital and annexe.

Structural Alterations.

A fairly extensive programme of alterations and additions has been carried out during the past year.

Wards B2 and B4, with ante-rooms, have been entirely reconstructed on the same lines as B6 Ward, which was completed in 1937. Experience has shown that the division of the ward by means of fixed screens has been entirely approved by the patients and by the medical and nursing staffs. The beds are placed parallel with the side wall of the ward, thus ensuring greater privacy for the patients and allowing more room round the bed for nursing purposes. A photograph of one of the wards is shown facing page 164.

A loud-speaker signalling system has been installed throughout the hospital to enable the telephone operator to communicate immediately with medical officers and senior officials. This system has been an unqualified success. It does not appear to disturb the patients, and it ensures that a medical officer can be called to the telephone within a few seconds in cases of emergency.

Nine separate rooms, divided by glass and metal partitions, have been provided in G2 Ward for the treatment of complicated and emergency midwifery cases. There is a separate labour room and nursery for this unit, and all patients are strictly isolated so as to prevent the spread of puerperal pyrexia. The ward is furnished and decorated in bright colours, which atone to some extent for the patient's enforced isolation from her fellows. A photograph of this ward is shown facing page 165.

Several alterations to the quarters of the resident medical staff, particularly the provision of a serving kitchen, have added to their contentedness and well-being.

At the annexe hospital four chutes have been constructed on the outside wall for the removal of soiled linen. Prior to this it was necessary to carry linen through the ward.

The theatre floors, which were originally of rubber, have been replaced by Terazzo.

Two day-rooms have been converted, each into two separate rooms for the treatment of cases of puerperal pyrexia, which are thus nursed entirely apart from the maternity block.

A basement room in the annexe has been converted into a dining room for laundry workers and day-workers employed there.

A new room has been added to the dispensary for the manufacture of pharmaceutical preparations, thus releasing a room for the preparation of sterile solutions.

Many other minor alterations have been carried out and a considerable amount of internal decorating, which has enhanced the appearance of the hospital.

New Equipment.

Purchases during the year include a scialytic shadowless lamp, prostatic resectoscope, a McKesson anæsthetic apparatus, and a cystoscopy operating table for the Operating Theatres; a short-wave diathermy apparatus and a stationary cycling machine for the Massage Department. Revolving wood shelters have also been purchased for the children in E2 Ward, and furniture and equipment for the new maternity ward.

General Work of the Hospital.

Detailed information of the work of the hospital will be found in the statistical tables shown elsewhere. It is of interest, however, to refer to some of the items at this point. The number of admissions (15,349) is practically the same as for the previous year. There was some speculation regarding the sudden increase in the number of admissions to Crumpsall during 1937, as there had been no indication of increased morbidity in the City generally. The real reason is probably to be found in the increased confidence which people have in the hospital and in the service which it is able to afford them when they are sick. People who used to remain at home in times of sickness now come into a municipal hospital because they realise that they can receive the standard of care and treatment which has hitherto only been obtainable in a voluntary hospital.

Of the patients discharged or died during the year, 12,813 had been in hospital under 4 weeks, while only 462 had been in hospital over 13 weeks. These figures are given so as to disprove the belief current in some quarters that the municipal hospital caters mainly for the chronic and incurable sick. The average number of beds occupied during the year was 1,167, a decrease of 47 as compared with last year.

Maternity Department.

A special report on the work of the maternity department appears at the end of this report. Without the slightest effort on our part the number of admissions continues to increase. Last year 2,782 women were admitted to the department; the number of available beds being now 121, of which 24 are for ante-natal cases. During the year 383 patients were treated in the ante-natal ward. The ante-natal clinic was attended by 2,550 women, who made 14,737 attendances. At the post-natal clinic there were 674 attendances.

Department of Surgery.

The total number of operations performed during the year was 2,505, excluding manipulative and closed fracture work. Of this number, 1,010 were carried out by the consultant staff; 596 by the resident surgical officer; 436 by the resident obstetrical officer; and the remainder by the assistant medical officers. Details of the operations performed are given in the following table:—

OPERATIONS ON SKIN AND SUPERFICIAL STRUCTURES.. .. .	294
Septic hands and tendon sheaths	39
Superficial abscesses, boils, and carbuncles	167
Suturing of wounds	27
Operations on lymph glands	14
Skin grafts	9
Burns	12
Others	26
OPERATIONS ON THORAX AND CHEST WALL	105
Empyema	19
Breast abscess	76
Breast tumours	10
OPERATIONS ON MOUTH AND LIPS	6
OPERATIONS ON BONES AND JOINTS:—	117
Insertion of Smith-Peterson nails	12
Osteomyelitis	11
Amputations	31
Cartilages of the knee	6
Compound fractures	8
Osteotomy	9
Bone graft	—
Others, including operations on feet, arthrodesis, etc.	40
OPERATIONS ON DUCTLESS GLANDS	12
Thyroidectomy	12
Splenectomy	—

OPERATIONS FOR HERNIA	187
Inguinal (including strangulated cases)	141
Femoral (including strangulated cases)	28
Umbilical (including strangulated cases)	5
Incisional	13
OPERATIONS ON ABDOMINAL WALL, ALIMENTARY CANAL, AND PERITONEUM, 600	
Gastrostomy	2
Peptic ulcer	14
Perforations of peptic ulcers	55
Cancer of the stomach	8
Gall bladder and bile ducts	54
Appendix (those removed during the course of other abdominal operations not included)	212
Small intestine and omentum	13
Large bowel and rectum	59
Hæmorrhoids and prolapsus ani	48
Anal and peri-anal suppuration	49
Sigmoidoscopy	19
Intra-peritoneal abscesses	2
Burst abdominal wounds	4
Abdominal wall abscess	2
Unclassified abdominal (including laparotomies, in which nothing was done)	59
GENITO-URINARY OPERATIONS :.. .. .	417
Cystoscopy	172
Prostatectomy	31
Trans-urethral resection of prostate	20
For stricture and other urethral conditions	83
On testis and epididymis	8
Nephrectomy -otomy, ureterotomy (including calculus disease)	28
Peri-nephric abscess	2
Supra-pubic cystotomy	36
Other bladder operations	5
Operations on penis and scrotum	32
GYNÆCOLOGICAL OPERATIONS	583
Dilatation and curettage	390
Vaginal repairs	63
Ectopic gestation	4
Operations on uterus and adnexa (for tumour formation, cysts, and inflammatory lesions, etc.)	107
Other operations, including cauterization of the cervix, Bartholin cysts, caruncles, etc.	19
EAR, NOSE, AND THROAT OPERATIONS	154
Tonsillectomy	66
Mastoidectomy	19
Œsophagoscopy	2
Brain abscess	—
Tracheotomy.. .. .	1
Others (including operations on sinuses, polypi, etc.)	66
UNCLASSIFIED OPERATIONS, INCLUDING INSERTION OF RADIUM..	30
NUMBER OF LAPAROTOMIES PERFORMED IN ALL DEPARTMENTS ..	876

Out-patient Work.

There is no proper out-patient department at Crumpsall. A diabetic clinic is held on the wards once a week, and an orthopædic clinic at the massage department. Other patients attend the various wards for treatment and examination. The total number of out-patients seen (including the ante-natal clinic) was 5,163, and the number of attendances 27,009.

Physio-therapy Department.

This department, which was opened some three years ago, is already found to be inadequate in size, and future extension or rebuilding will have to be envisaged. The following figures give details of the work done in the department:—

IN-PATIENTS—

Number of new patients	742
Number of discharges	748
Number on books at beginning of year	66
Number on books at end of year	61
Total attendances	8,301

TREATMENTS—

Massage	4,190
Radiant heat	3,188
Electro-therapy	3,101
Exercises	4,917
Sunlight	1,146
Total treatments	16,542

OUT-PATIENTS—

Number of new patients	526
Number of discharges	468
Number on books at beginning of year	99
Number on books at end of year	193
Total attendances	8,912

TREATMENTS—

Massage	3,201
Radiant heat	3,403
Electro-therapy	5,363
Exercises	6,320
Sunlight	859
Total treatments	19,146

X-Ray Department.

RADIOGRAPHY—

Number of in-patients examined	2,613
Number of out-patients examined	534
	<u>3,147</u>

Number of radiographic examinations:—

Alimentary tract	496
Renal tract	367
Chest	1,352
Gall bladder	82
General	2,616
	<u>4,913</u>

Number of radiographic examinations made with mobile apparatus	484
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SCREENING—

Number of screen examinations -

Alimentary tract	587
Chest	30
	<u>617</u>

Number of electro-cardiograms taken	<u>141</u>
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Other Departments.

	Number of Patients	Attendances
Ear, Nose, and Throat Department	447	673
Ophthalmic Department	283	316
Dental Department	204	—
Mothers' Clinic	46	175

During the year 173 post-mortem examinations were made.

Casualties.

The number of casualties dealt with during the year was 1,293, of whom 198 were not admitted to hospital. The number of casualty cases referred from voluntary hospitals was 361.

REPORT OF THE MATERNITY DEPARTMENT OF CRUMPSALL
HOSPITAL FOR THE YEAR 1938.

During the year 2,745 women were treated in the maternity department. Of these, 2,495 were booked cases (*i.e.*, had attended the ante-natal clinic at the hospital) and 250 were emergency cases.

The booked cases comprised the following:—

	Primips.	Multips.	Total
Patients delivered at or near term	1,229	1,244	2,473
*Patients delivered before 28th week ..	1	5	6
Patients admitted after delivery	2	14	16
	1,232	1,263	2,495

The emergency cases comprised the following:—

	Primips.	Multips.	Total
Patients delivered at or near term	87	129	216
*Patients delivered before 28th week.. ..	4	12	16
Patients admitted after delivery	8	9	17
Patients who died undelivered	—	1	1
	99	151	250

* The majority of the abortions are treated in the gynæcological department.

Of the 2,745 women treated, 1,331 were primipare—*i.e.*, 48·4 per cent..

Maternal Mortality.

There were 11 deaths in the maternity department. Six of these were in booked cases and five in emergency cases. The cause of death is given below:—

Emergency Cases.

1. Supra-renal hæmorrhage. Pyonephrosis. Patient died one hour after a spontaneous twin delivery.
2. Pneumonia following a difficult delivery. Patient was admitted as a "failed forceps." She had a contraction ring and was eventually delivered of an anencephalic monster weighing 9lbs. 8ozs.
3. Ante-partum hæmorrhage. Moribund on admission.
4. Concealed accidental hæmorrhage.
5. Toxæmia of pregnancy—abortion.

Booked Cases.

1. Obstetric shock—death occurred about two hours after a spontaneous delivery.
2. Eclampsia.
3. General peritonitis following Cæsarean section.
4. Anæsthetic death—spinal anæsthetic had been administered for Cæsarean section.
5. Obstetric shock. Death occurred three hours after a spontaneous delivery.
6. Lobar pneumonia.

Total number of women treated	= 2,745
Therefore maternal mortality rate	= 11 in 2,745
	= 4.01 per 1,000
Number of booked cases	= 2,495
Number of deaths in booked cases	= 6
Therefore maternal mortality rate in booked cases	= 6 in 2,495
	= 2.4 per 1,000

Maternal Morbidity.

Morbidity is reckoned according to the Ministry of Health standard. By that standard 7 cases were morbid, in addition to the 11 deaths.

Therefore morbidity rate	= 18 in 2,745
	= 6.5 per 1,000

Summary of Abnormal Labour.*Abnormal Presentations.*

	No. of Cases
Persistent occipito-posterior	40
Breech	68
Face	3
Shoulder	4
Twins	33

Complications.

Ante-partum hæmorrhage—	
(a) Placenta-prævia	13
(b) Accidental hæmorrhage	51
Post-partum hæmorrhage	9
Prolapsed cord	6
Eclampsia	10

Operations performed.

Cæsarean Section—	
(a) Lower segment	13
(b) Classical operation	17
(c) Extra-peritoneal	1
Cæsarean hysterectomy	1
Forceps	64
Craniotomy—	
(a) For brow	1
(b) For hydrocephalus	3

Induction of Labour.

(a) Medicinal	5
(b) Combined medicinal and artificial rupture of membranes	100
(c) Bougie	1
(d) Stomach tube	3
<i>Therapeutic Abortion</i>	6

Ante-Natal Treatment.

During the year, 201 patients received in-patient treatment in the ante-natal ward for various reasons. The conditions for which the treatment was given are indicated in the following table:—

Type of Case	Number of Cases
Toxic albuminuria	63
Urinary infection	29
Cardiac disease	23
Debility	11
Pulmonary disease (non-tuberculous)	8
Ante-partum hæmorrhage.. .. .	8
Hyperemesis gravidarum	6
Late vomiting	6
Hyperpiesis	6
Prolapse	5
Anæmia	4
Vaginal discharge	3
Vulvitis	3
Mental instability	3
Hydramnios	3
Twin pregnancy	3
Chorea	2
Epilepsy	2
Pre-eclampsia	2
Other conditions	11
	201

Neo-Natal Deaths.

Under this heading are included all infants who die before discharge from hospital:—

	Booked	Emergency
Full-term	16	2
Premature	20	22
Number of patients delivered after 28th week of pregnancy	=	2,689
Number of twin pregnancies	=	33
Number of infants born	=	2,722
Number of still-births	=	117
Still-birth rate	=	4.29 per cent.
Number of neo-natal deaths	=	60
Neo-natal death-rate	=	2.2 per cent.
Combined still-birth and neo-natal death-rate ..	=	6.49 per cent.

MONSALL HOSPITAL.

Report for Year ended December 31st, 1938.

By D. Sage Sutherland, M.D., Medical Superintendent.

At the close of the year 1937, 404 patients remained in hospital. During 1938, 4,833 were admitted. The total number under treatment during the year was 5,237. There were 143 deaths and 4,719 were discharged cured.

375 remained in hospital at the end of the year.

The outstanding feature of the year was the coincident increased prevalence of scarlet fever, diphtheria, and measles during the first three months.

Diphtheria commenced to fall about the middle of March, but the increased prevalence of scarlet fever was maintained until May.

All cases of diphtheria were accommodated, but during part of this period some restriction had to be placed on the admission of scarlet fever cases to enable beds usually allocated to scarlet fever to be used for diphtheria. Under the circumstances it was impossible to set aside special wards allocated to cases of measles complicated by broncho-pneumonia.

The largest total number of cases admitted to hospital was during the month of January, when 535 cases were received. The maximum number of patients in hospital was 545 on March 7th, and the minimum number was 266 on August 28th, 1938.

The average daily number of patients in hospital for the year was 390.5, as against 408.7 in the year 1937.

The average duration of stay for each patient was 29.5 days, as against 29.6 in 1937.

The fatality rate for all cases under treatment was 2.9 per cent., as compared with 3.7 during 1937.

In 499 cases, or 10.3 per cent., the diagnosis was altered from the certified disease.

Scarlet Fever.

One hundred and eighty-five cases remained in hospital at the end of the previous year, and during the year 2,014 were admitted, showing a decrease of 17 on the previous year. The number of discharges was 2,050, and 10 deaths occurred during the year, giving a death rate of 0.49 per cent. During the previous year the death rate was 0.24 per cent.

The average stay in hospital was 33.2 days, showing an increase of 0.2 days on the previous year. The average number of days in hospital of fatal cases was 11.7.

The total number of scarlet fever cases receiving antitoxin on admission was 1,151, or 57.1 per cent.

Scarlet Fever Fatalities.

Death occurred in 10 verified scarlet fever cases:—

	<i>Deaths.</i>
Scarlet fever and purpura fulminans	2
„ „ measles and broncho-pneumonia.. ..	2
„ „ suppurative adenitis and toxæmia (moribund on admission)	1
„ „ and faucial diphtheria	1
„ „ microcephaly and spastic paralysis ..	1
„ „ and lateral pharyngeal wall abscess ..	1
„ „ and burns (pre-admission)	1
„ „ streptococcal meningitis and broncho- pneumonia	1

Scarlet Fever Return Cases.

The number of cases of scarlet fever discharged from hospital during the year 1938 was 2,050. The number of true return cases for the year was 86, the return case rate being, therefore, 4·2 per cent., as against 4·4 per cent. for 1937.

The average duration of stay in hospital of cases giving rise to secondary cases was 30·6 days. The average interval elapsing between the discharge of the primary case from hospital and the onset of the disease in the secondary case was 10·2 days.

Return cases infected :—

During 1st week after discharge of primary case 46·5 per cent.

„ 2nd	„	„	27·9	„
„ 3rd	„	„	17·5	„
„ 4th	„	„	8·1	„

2 cases gave rise to 3 return cases.

11 cases gave rise to 2 return cases.

58 cases gave rise to 1 return case.

Age Distribution of Infecting Cases.

	Discharges	Infecting Cases	Percentage
Under 1 year	15	—	—
1—4 years	509	13	2·6
5—9 „	863	42	4·9
10—14 „	383	11	2·9
15—19 „	110	2	1·8
20 + „	170	3	1·8
Totals	2,050	71	3·5

In 26 patients a condition was noted after discharge to which infection might have been attributed, viz., rhinorrhœa (14 cases), otorrhœa (4 cases), excoriation of nose (4 cases), enlarged glands (3 cases), and sore throat (1 case). The other infecting cases remained free from discharges and other complications at the time of the occurrence of the secondary case.

Monthly Table.

1938	Discharges	Return Cases	Percentage
January	181	20	11.0
February	199	11	5.5
March	195	9	4.6
April.. .. .	209	9	4.3
May	226	8	3.5
June	183	4	2.2
July	153	1	0.7
August	163	5	3.1
September	116	4	3.4
October	121	7	5.8
November	144	2	1.4
December.. .. .	160	6	3.8
Total	2,050	86	4.2

Minimum—0.7 per cent. July.

Maximum—11.0 per cent., January.

Age Incidence of Scarlet Fever Cases.

Age Incidence	Number	Percentage
0—5 years	532	25.8
5—10 ,,	864	41.9
10—15 ,,	384	18.6
15—20 ,,	110	5.3
20 + ,,	170	8.3

Complications in Scarlet Fever.

Complication	Number	Percentage
Rhinorrhœa in Convalescence	170	8.3
Otorrhœa	200	9.7
Nephritis	15	0.7
Albuminuria in Convalescence.. ..	27	1.3
Adenitis and Abscess	7	0.3
Endocarditis	2	0.1

Active Immunization against Diphtheria in Patients Admitted to Hospital Suffering from Scarlet Fever.

201 cases of scarlet fever were completely immunized against diphtheria, and 524 were incompletely immunized.

DIPHTHERIA.

The number of patients admitted certified as diphtheria was 1,582 as against 1,795 in 1937, showing a decrease of 213. The total number under treatment was 1,761. There were 1,508 discharges and 61 deaths; 24 deaths occurred within 48 hours of admission. The gross fatality rate was 3.9 per cent., as against 5.02 during the previous year, or 2.39 excluding the 24 deaths referred to.

292 cases out of the total were diagnosed as diphtheria carriers; excluding these carrier cases the fatality rate is 4.8.

The average stay in hospital of the patients who recovered was 37.7 days; and for fatal cases 8.9 days.

259 cases certified diphtheria were found to be suffering from some other disease; of these cases 4 proved fatal.

Intravenous Serum Treatment of Diphtheria.

Of 1,582 admissions, 243 cases were of severe type necessitating treatment with serum by intravenous injection. The following table indicates the higher mortality of this type of diphtheria:—

Total number of cases treated with intravenous anti-diphtheritic serum	243
Deaths	43
Case mortality	17.7 per cent.

Twelve deaths occurred within 48 hours. If these are excluded the death rate equals 13·4 per cent.

Fatal cases: Average day of disease on admission 4·0

Recovered cases: Average day of disease on admission 3·5

Fatal Cases: Day of Disease on which Death Occurred.

Day	2nd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Cases.. .. .	1	5	3	1	2	3	3	1	3	6	2
Day	14th	15th	16th	17th	19th	20th	41st	42nd	45th	51st	
Cases.. .. .	1	1	3	2	1	1	1	1	1	1	

The recovery rate of severe cases of diphtheria for 1938 shows an improvement on that for 1937, when the death rate, excluding deaths within 48 hours, was 16·6 per cent., as against 13·4 per cent., in the year 1938.

The average number of days in hospital of recovered cases was 72·5.

Of the 200 cases who recovered, 57 (29 per cent.) suffered from post-diphtheritic paralyses.

Table showing Types of Paralysis in Cases which Recovered.

Palatal paralysis	27
Palatal and pharyngeal paralysis	5
Palatal, pharyngeal and diaphragmatic paralysis ..	2
Palatal, ocular and facial paralysis	4
Palatal and facial paralysis	1
Palatal, pharyngeal and ocular paralysis	3
Palatal, pharyngeal, ocular and diaphragmatic paralysis	1
Palatal, pharyngeal, facial and diaphragmatic paralysis	1
Palatal, pharyngeal, facial, ocular and diaphragmatic paralysis	1
Palatal, pharyngeal and facial paralysis	1
Palatal and peripheral paralysis	1
Palatal, ocular and peripheral paralysis	1
Palatal and ocular paralysis	2
Ocular paralysis	5
Facial paralysis	1
Facial and peripheral paralysis	1

Cases treated in the Drinker Respirator.

During the year seven patients have been treated in the Drinker respirator for paralysis of the respiratory muscles. Of these, five recovered and two died. Four of the cases suffered from a very severe attack of naso-pharyngeal diphtheria on admission, and the other three had moderately severe attacks. All had during the course of the illness a marked degree of involvement of the heart muscles, which eventually led to death in two of the cases.

The following are the details :—

Age of Patient	Male or Female	Recovered or Died	Day of Disease on Admission	Paralyses and Day of Onset	Time in Drinker Respirator
3½ years ..	F.	Recovered	5th	Palatal (34th) Pharyngeal (48th) Strabismus (48th) Diaphragmatic (50th)	4 days
7 years ..	F.	Recovered	7th	Palatal (30th) Strabismus (42nd) Pharyngeal (43rd) Diaphragmatic (48th)	10 days
5 years ..	M.	Recovered	2nd	Palatal (39th) Pharyngeal (43rd) Strabismus (47th) Diaphragmatic (54th)	22 hours
5 years ..	M.	Recovered	4th	Palatal, pharyngeal, facial, and diaphragmatic (30th)	9 days
3½ years ..	F.	Recovered	4th	Palatal and pharyngeal (47th) Facial (49th) Diaphragmatic (50th) Strabismus (51st)	8 days
7 years ..	F.	Died	4th	Palatal and pharyngeal (42nd) Diaphragmatic (51st)	9 hours
17 years ..	F.	Died	4th	Precocious palatal (11th) Palatal (24th) Pharyngeal (42nd) Diaphragmatic (45th)	7 hours

Laryngeal Diphtheria.

The number of cases in which tracheotomy was necessary was 10, a decrease of 14 on the number of operations in 1937.

Tracheotomy Cases.

	Cases	Deaths
Under 1 year	—	—
1—2 years	—	—
2—3 „	2	1
3—4 „	1	—
4—5 „	1	1
5+	6	1
	10	3
Mortality Rate	30 per cent.	

Treatment of Diphtheria Carriers by Ultra-Violet Light from Kromayer Lamp.

During recent months the value of ultra-violet light therapy in the treatment of diphtheria carriers has been investigated at Monsall Hospital. A water-cooled Kromayer lamp with quartz applicators has been employed.

Patients treated included convalescent carriers, and healthy carriers, admitted for isolation.

The *C. diphtheriæ* isolated from contact carriers were found to be virulent. The *C. diphtheriæ* from the convalescent carriers were similarly tested.

Of the present series of 41 cases, 29 were under the age of 16, and 12 over 16.

Throats and noses were sprayed with percaïne and adrenalin solution prior to exposure to ultra-violet light. The tonsil applicator was applied directly to the tonsils. The nasal applicator was inserted for about two inches into the nose and gradually withdrawn during treatment. The aural applicator was inserted into the external auditory meatus. For faucial carriers generalised irradiation to the tonsils, fauces, and oro-pharynx was found to be less satisfactory than treatment by means of the tonsil applicator.

The dosage at the commencement was experimental. A mild local erythema was aimed at, and it was found that, on the average, irradiations of one minute, two minutes, and three minutes to each tonsil or nostril, or both, on consecutive days was satisfactory. Cases resistant to this dosage did not appear to benefit from more prolonged exposure. It was also found that most of those benefiting from the treatment responded to the first course of irradiation. Those requiring extended treatment were more refractory.

Results.

It was hoped as a result of treatment to free the nose and throat from *C. diphtheriæ*. Negative throat and nose cultures on a minimum of three consecutive days within a week of treatment was regarded as a satisfactory result. Patients in whom this result was not obtained were said not to have benefited from treatment.

Of the 41 patients under review, 15 did not benefit from the treatment and 26 appeared to benefit from it.

	Rendered Sterile	Not Benefited
Contact Carriers	8	4
Convalescent Carriers	18	11

It has to be noted that 80 per cent. of both contact and convalescent carriers become free of *C. diphtheriæ* by the 30th day of disease without special local treatment. (Weaver, 1921).

In the above series 10 of the patients obtaining apparent benefit received treatment before the 30th day. Of these 10, 7 were contact carriers. When this number is deducted it may be said that 16 were rendered negative by the treatment and 15 showed no benefit.

The localization of the organisms is shown in the following table:—

Result	Throat	Nose	Throat and Nose	Throat, Nose, and Ear
Cultures rendered negative	11	7	7	1
No benefit	7	4	3	1

A number of the patients treated had unhealthy throat and nose conditions apart from the harbouring of diphtheria organisms. Hypertrophied tonsils with deep septic-looking crypts, enlarged adenoids, and dry crusted nasal mucosa accounted for most of the abnormalities.

	Unhealthy Tonsillar Condition	Unhealthy Mucous Membrane	Apparently Normal Throat and Nose	Chronic Otorrhœa	Total
Cultures rendered negative	5	2	18	1	26
No benefit	7	2	5	1	15

Five out of the 7 throat carriers which did not benefit from the ultra-violet light therapy eventually had to have tonsillectomies performed, with successful result. Two of these five had, in addition, hypertrophied adenoid tissue removed.

Diphtheria Cases—1,277.
(excluding 292 carriers.)

Age Incidence	Number	Percentage	Percentage Death Rate
0—5 years	261	20.4	6.5
5—10 ,,	508	39.8	6.1
10—15 ,,	266	20.8	2.3
15—20 ,,	112	8.8	2.7
20 + ,,	130	10.1	2.3

Complications in Diphtheria.

Complication	Number	Percentage
Otitis media	123	9.6
Palatal paresis	73	5.7
Pharyngeal paralysis	16	1.3
Facial paralysis	13	1.0
Respiratory paralysis.. .. .	7	0.5
Ocular paralysis	25	2.0
Cardiac arrhythmia	51	4.0
Bradycardia	13	1.0
Arm and leg paralysis	1	0.1

Active Immunization against Scarlet Fever in Dick-Positive Reactors admitted to Hospital suffering from Diphtheria.

Age	Total Tested	+ ve	Percentage + ve	—ve	Completely Immunized	Incompletely Immunized
0—1	45	25	55.6	20	12	13
1—2	120	50	41.7	70	30	20
2—3	80	35	43.8	45	20	15
3—4	90	50	55.6	40	20	30
4—5	365	183	50.1	182	47	136
5—10	626	336	53.7	290	65	271
10—15	195	60	30.8	135	21	39
15—20	110	43	39.1	67	19	24
20 +	96	39	40.6	57	6	33
	1,727	821	47.5	906	240	581

ENTERIC FEVER GROUP

In hospital at commencement of year	2
Admitted during the year	17
Incorrectly diagnosed	10
Remaining in hospital at end of year	0
Discharged	9
Average day of disease on admission	15th
Average stay in hospital	58 days.
Average age of patients	27·9 years.
No death occurred from enteric fever during the year.	

Other diseases admitted as enteric fever :—

Enteritis	4 cases.	Recovered.
Influenza	1 case.	,,
Acute appendicitis	2 cases.	,,
Dysentery (Morgan)	1 case.	,,
Bronchitis	1 ,,	,,
Broncho-pneumonia	1 ,,	Died.

The type of disease in the cases discharged was as follows :—

Typhoid	5 cases.
Paratyphoid "B"	3 ,,
Paratyphoid "C"	1 case.

ERYSIPELAS.

Two hundred and thirty-three cases were admitted, an increase of 6 on the previous year, and 234 cases were discharged.

Throughout the year, drugs of the sulphonilamide group have been used in the treatment of all cases. The results of this treatment continue to be very satisfactory.

Three deaths occurred, giving a mortality rate of 1·3 per cent., as against 3·3 per cent. in the previous year.

Details of the fatal cases.

1. Male, aged 67. Cause of death: Erysipelas and arteriosclerosis.
2. Male, aged 83. Cause of death: Erysipelas, senility, and arteriosclerosis.
3. Female, aged 52. Cause of death: Erysipelas and toxic encephalitis.

No death occurred during the year in an uncomplicated case of erysipelas.

There were 67 cases notified as erysipelas in which the original diagnosis had to be amended. The following is a list of the conditions in which an alteration of the diagnosis was made :—

	Cases
Cellulitis	42
Eczema	7
Herpes	5
Dermatitis	5
Furuncle	1
Septic sores	1
Ischio-rectal abscess	1
Dacryocystitis	1
Alveolar abscess	1
Carbuncle	1
Phlebitis	1
Varicose ulcers	1

MEASLES.

Seventy-eight cases of measles were admitted during the year 1938, and 82 were discharged. Four deaths occurred, giving a fatality rate of 4·7 per cent. Three deaths were due to broncho-pneumonia and one to enteritis. Of the cases which recovered four were complicated by broncho-pneumonia.

WHOOPING COUGH.

Thirty cases of whooping cough were admitted during 1938, as against 79 in the previous year. There was 1 death, giving a death rate of 3·3 per cent., as against 7·6 in 1937.

	Number of Cases	Deaths	Percentage Death Rate
Under 1 year	4	—	—
1 year	4	—	—
2 years	4	1	25·0
3 „	7	—	—
4 „	6	—	—
5 + „	5	—	—
	30	1	3·3

The cause of death in the fatal case was broncho-pneumonia.

The complications noted in the cases under treatment were as follows :—

Broncho-pneumonia	.. .. .	3 cases—10 per cent.
Rheumatic endocarditis	.. .. .	1 case —3·3 „
Bronchitis	.. .. .	1 „ —3·3 „

CEREBRO-SPINAL FEVER.

Forty-six cases of meningococcal meningitis were treated during the year. Of these, 18 died and 28 recovered, giving a fatality rate of 39·1 per cent. Seven patients died within 48 hours of admission, and, excluding these, the fatality rate from this disease was 28·2 per cent.

	No. of Cases	Male	Female	Died	Recovered	Case Mortality per cent.	
						Total	Excluding Deaths in 48 hours
Under 1 year ..	9	7	2	5	4	55·6	42·9
1 to 5 years	13	8	5	7	6	53·8	45·5
5 „ 10 „ ..	7	2	5	3	4	42·9	20·0
10 „ 20 „ ..	6	4	2	—	6	—	—
20 + ..	11	7	4	3	8	27·3	20·0
	46	28	18	18	28	39·1	28·2

Average day of disease on admission to hospital :—

Recoveries : 4th.

Deaths : 5th.

Average day of disease on which death occurred : 16th.

Forty-two cases were treated with sulphonilamide in addition to serum.

Average daily does of sulphonilamide : 3·6 grammes.

Average total does of sulphonilamide : 39·8 grammes.

It is of note that, on breaking up the periods of the year from January to July, during which treatment by intrathecal injection of antimeningococcic serum was the routine form of treatment, associated with intravenous, intraperitoneal, and intramuscular serum, and comparing it with the remainder of the year, during which treatment by the intrathecal route was discontinued and intravenous, intraperitoneal, and intramuscular therapy continued, a marked diminution in the death rate is shown. During the first period the death rate among 34 cases was 50 per cent., and in the second period, among 12 cases, 8·3 per cent.

OTHER INFECTIOUS DISEASES.

The following table gives the admissions of other infectious diseases during the year :—

	<i>Cases.</i>
Rubella	27
Chicken-pox	30
Mumps	11
Pemphigus	1
Poliomyelitis	5

One patient, a girl aged 14 years, suffering from poliomyelitis affecting the chest muscles and arms, required artificial respiration in the Drinker respirator.

For sixteen days after she developed respiratory muscle paralysis she required continuous artificial respiration. For the following two days she breathed naturally, fairly satisfactorily, but for the next four days she again required artificial respiration. Thereafter, for shorter periods, she required assistance in breathing, but eventually recovered sufficiently well to breathe without assistance and was transferred to Booth Hall Hospital for further treatment of the affected arms. Altogether she was in the Drinker respirator for almost 24 days.

TABLE SHOWING NUMBERS OF VARIOUS
DISEASES TREATED.

	Remaining in Hospital, Jan. 1st, 1938	Admitted	Discharges and Deaths	Remaining in Hospital, Dec. 31st, 1938
Scarlatina	185	2,014	2,060	139
Diphtheria and Diphtheria Carriers	179	1,582	1,569	192
Enteric Fever Group ..	2	7	9	—
Erysipelas	18	233	237	14
Puerperal Fever & Pyrexia	—	179	174	5
Measles	8	78	86	—
Other Diseases	12	740	727	25
	404	4,833	4,862	375

POST MORTEM EXAMINATIONS.

During the year 21 post-mortem examinations were performed.

Disease Notified	Post-mortem Findings
Diphtheria	Diphtheria.
Laryngeal diphtheria ..	Laryngeal diphtheria. Acute myocarditis.
Laryngeal diphtheria and scarlet fever	Late scarlet fever. Cervical abscesses.
Diphtheria	Tonsillitis. Streptococcal septicæmia.
Septic scarlet fever	Septic scarlet fever. Lobar pneumonia. Measles.
Scarlet fever	Scarlet fever. Purpura fulminans.
Erysipelas	Erysipelas. Toxic encephalitis. Epilepsy.
,,	Cavernous sinus thrombosis.
,,	Varicose ulcer. Phlebitis. Intracardial thrombosis.
Puerperal pyrexia	Puerperal sepsis. Septicæmia.
,, ,,	,, ,, ,,
,, ,,	,, ,, ,,
,, ,,	Puerperal sepsis. Peritonitis. Pneumonia and pleurisy.
Septic abortion	Septic abortion. Septicæmia.
,, ,,	,, ,, Septic parotitis.
Cerebro-spinal fever	Acute lobar pneumonia.
,, ,,	Staphylococcal septicæmia.
{ ? Cerebro-spinal fever	Tuberculous meningitis.
{ ? Encephalitis	
Encephalitis lethargica	Tuberculous meningitis. Phthisis.
Poliomyelitis	Acute lobar pneumonia.
Chicken-pox and acute arthritis	Chicken-pox. Acute streptococcal cellulitis of left hip. Acute streptococcal pneumonia. Septicæmia.

AURAL REPORT.

The total number of cases of otorrhœa occurring in the hospital during 1938 was 348. These were distributed as follows :—

In scarlet fever	.. .. .	200
„ diphtheria	.. .. .	123
„ measles	.. .. .	7
„ miscellaneous disease	.. .. .	18

During the year 119 cases were discharged after treatment in the special Aural Ward.

(A) *Scarlet Fever.*

Among the 2,050 cases discharged and 10 deaths during 1938 there were 200 cases of otorrhœa, a case incidence of 9·7 per cent.

Mastoid drainage was required in 11 cases, being an incidence of 0·5 per cent. of scarlet fever cases and 5·5 per cent. of cases of otorrhœa.

Of the total cases, 172 were unilateral and 28 bilateral ; 19 of the cases were recurrences or exacerbations of chronic pre-scarlatinal otitis.

The average day of onset of otorrhœa was the 15th and the average duration of otorrhœa was 24 days.

Of the cases 90 were females and 110 males.

Operations performed by the Aural Surgeons.

Mastoid drainage—

Unilateral	.. .. .	9
Bilateral	.. .. .	2

Among the 11 cases the average day of disease on which mastoid drainage was required was the 37th, and the average duration of otorrhœa after the operation was 39 days. Of the cases 7 were females and 4 were males.

Comparison of Non-serum Treated and Serum Treated Cases.

Serum was given as a routine to all cases of scarlet fever admitted on and after 10th April. This has led to a striking decrease in the number of cases of otorrhœa.

Excluding from both groups those cases of chronic otorrhœa and otorrhœa starting before admission, the non-serum treated cases give an incidence of otorrhœa of 12·2 per cent. and the serum treated cases 3·5 per cent.

There were 25 bilateral cases and 10 mastoidectomies in the non-serum treated cases and 3 and 1 respectively in the serum treated.

All cases were given a course of Prontosil during the period of otorrhœa.

The average duration of discharge in the serum treated was 18·4 days. This compares favourably with an average duration of discharge during the past 5 years of 32·1 days.

	Non-serum Treated	Serum Treated
Number of cases of scarlet fever	909	1,151
Cases of otorrhœa—	133	67
On admission	17	17
Chronic	8	11
Beginning in hospital	108	39
Percentage developing otorrhœa, excluding otorrhœa on admission and chronic cases..	12·2	3·5
Average day of onset	16·2	14·4
Duration of discharge	25·6 days	18·4 days
Bilateral	25	3
Mastoids	10	1

(B) *Diphtheria*.

Among the 1,508 cases discharged and 61 deaths during 1938 there occurred 123 cases (7·8 per cent.) of otorrhœa.

Of these, 101 were unilateral, 22 were bilateral, and 5 were recurrences of pre-diphtheritic otitis. (49 +ve K.L.B. in smear.)

Of the cases 55 were males and 68 were females.

Two mastoid operations were performed.

(C) *Measles*.

Among the 82 cases discharged and 4 deaths during 1938 there occurred 7 cases (8·1 per cent.) of otorrhœa.

Of these, 6 were unilateral and 1 bilateral. Of the cases 2 were males and 5 were females.

Miscellaneous Cases in which Otorrhœa occurred.

Erysipelas	2
Whooping Cough	5
Cerebro-spinal Fever	4
Tonsillitis	4
Mumps	3

SPECIAL ISOLATION WARDS.

483 cases were treated in the Glass Cell Ward and 546 cases in the Bed Isolation Ward.

The cases admitted to these wards largely come under the following groups:—

- (a) Cases for which there is no other accommodation available in the Hospital.
- (b) Cases in which two or more diseases are present concurrently.
- (c) Cases in which there is a history of exposure to another disease.
- (d) Cases in which the diagnosis of the disease certified remains in doubt.

LABORATORY REPORT.**Microscopical Examination of Cultures for *C. Diphtheriæ*.**

Source of Swab	Lœffler Culture Media		Tellurite Culture Media	
	Number Examined	Positive	Number Examined	Positive
Throat	21,180	1,747	977	364
Nose	20,350	1,139	859	291
Ears	1,837	461	142	42
Miscellaneous	38	—	7	7
	43,405	3,347	1,985	704

A list is appended of the various specimens examined in the laboratory during the year :—

Fæces	353
Urine	375
Sputum	23
Cerebro-spinal fluid	134
Cervical swabs—	
Anærobic.. .. .	21
Ærobic	187
Vaginal swabs—	
Anærobic.. .. .	22
Ærobic	22
Blood cultures—	
Anærobic.. .. .	22
Ærobic	268
Blood counts	9
Pus cultures	89
Agglutinations	35
Direct smears	42
Miscellaneous fluids	17
Miscellaneous swabs for hæmolytic streptococci (throat, nose, ears, eyes, wounds, abscesses, etc.)	970

ILLNESS OF NURSING STAFF NECESSITATING
WARD TREATMENT DURING 1938.

Condition	Number of Cases	Days Warded
Appendicitis	1	27
Bronchitis	1	24
Catarrhal cold	7	63
Catarrhal jaundice	2	24
Dermatitis	1	10
Detachment of retina	1	44
Diphtheria	4	126
Dyspepsia	1	8
Enteritis	9	53
Influenza	3	24
Laryngitis	1	5
Pes planus	3	25
Pleurisy	2	90
Prepatellar bursitis	1	20
Reaction to T.A.F.	1	3
Rheumatism	4	33
Scarlet fever	1	30
Septic sores, furuncles, abscesses	18	175
Synovitis of knee	2	47
Tonsillitis	51	393
Urticaria	1	9
	115	1,233

IMMUNIZATION OF NURSING STAFF.

78 nurses were Dick and Schick tested during the year 1938.

15 nurses were found to be Dick positive and 12 were immunized against scarlet fever. 3 nurses left before immunization was completed.

19 nurses were found to be Schick positive : 18 were given three doses of toxoid antitoxin floccules, and 1 nurse left before immunization was completed. The nurses found to be Schick negative were given two doses of toxoid antitoxin floccules.

47 nurses were given T. A. B. vaccine orally, and 5 nurses oral T. A. B. and three injections of T. A. B. vaccine.

During the year 4 nurses developed diphtheria and 1 nurse developed scarlet fever.

Of those who developed diphtheria 3 were Schick negative and had had two 1 c.c. doses of toxoid antitoxin floccules. The other nurse was Schick positive and was in the process of being immunized when she developed the disease.

The nurse who contracted scarlet fever was Dick negative when she joined the hospital staff.

PUERPERAL SEPSIS.

The number of admissions was 179, as against 169 in 1937, showing an increase of 10. 155 were discharged and 19 died, giving a mortality rate of 10.9 per cent., as against 8.5 per cent. in 1937. Included in the 19 deaths are 3 occurring within 48 hours of admission. If these are excluded the mortality is 9.4 per cent., as against 5.8 per cent. in the previous year.

Average stay in hospital of cases discharged, 20.4 days.

Average stay in hospital of fatal cases, 11.5 days.

Average day of disease on admission—

Recoveries	4.4 days
Deaths	4.4 „

The cases discharged or died are classified as—

Puerperal cases	103
Abortal cases	63
Miscellaneous	8

The miscellaneous group comprised—salpingitis 1 case, hydatidiform mole 1 case, threatened abortion 4 cases, metrorrhagia 1 case, and sub-acute bacterial endocarditis 1 case.

Operations.

	No.	Died	Recovered
Laparotomy	4	4	—
Removal of retained products of conception	48	4	44
Incision of breast	4	—	4
Incision of abscess of thigh	2	—	2

16 seriously ill cases received blood transfusion. 4 cases had repeated transfusions.

Puerperal Cases.

Of the cases with genital tract infection, 90 were discharged and 13 died, giving a case mortality of 12·6 per cent.

41 cases were uncomplicated: the remainder had the complications shown in the following table:—

Bacilluria	26
Cellulitis of thigh	3
Empyema	1
Mastitis	8
Pelvic cellulitis	2
Perinephric abscess	1
Peritonitis	1
Phlegmasia	4
Pleurisy	5
Pneumonia	1
Pulmonary embolism	1
Salpingitis	6
Septicæmia	15

The most striking feature of these figures is the marked drop in the incidence of peritonitis—one case only as against 7 in 1937 and 12 in 1936.

Clinical Survey.

The general classification of puerperal sepsis has been adhered to, and the total number of cases has been divided into four groups:—

Group I.—Infection limited to uterus, vagina, and perineum.

Group II.—Infection involving uterus, pelvic cellular tissue, tubes, and ovaries.

Group III.—Infection of the birth canal with general peritonitis.

Group IV.—Infection of the birth canal associated with septicæmia.

Group I. comprised 42 cases. There were no deaths.

Group II. comprised 45 cases with 3 deaths, giving a mortality rate of 6·7 per cent.

Group III. contained only one case, which died. Mortality rate 100 per cent.

Group IV. comprised 15 cases with 9 deaths, giving a mortality rate of 60 per cent.

Bacteriological Survey.

The same four groups are used as for the clinical survey.

Cases due to the Hæmolytic Streptococcus.

	No.	Died	Fatality rate per cent.
Group I.	25	—	—
„ II.	6	1	16·7
„ III.	—	—	—
„ IV.	11	7	63·6
	—	—	—
Total	42	8	19·0
	—	—	—

Cases due to Other Organisms.

	No.	Died	Fatality rate per cent.
Group I.	17	—	—
„ II.	39	2	5·1
„ III.	1	1	100
„ IV.	4	2	50
	—	—	—
Total	61	5	8·2
	—	—	—

Treatment.

Throughout the year all cases admitted were given one or other of the various sulphonilamide preparations by mouth in doses varying from 3 to 7 grammes daily, according to the severity of the infection. In cases infected with the hæmolytic streptococcus this treatment was continued until the patient became apyrexial. In the cases due to organisms other than the hæmolytic streptococcus, sulphonilamide was stopped as soon as the results of the routine cultures were known if the organism was one on which the drug has been shown to be ineffectual.

In addition to sulphonilamide, local treatment by irrigation and douching was continued.

Twenty cases of *B. coli* bacilluria were treated, in addition, with sodium mandelate.

Detailed Analysis of Fatal Cases.

(1) Parity 1. Confinement at home. Forceps delivery. Attended by private doctor. Ante-natal care adequate.

Cause of death: Septicæmia due to the hæmolytic streptococcus, present on admission.

? Date of onset of pyrexia.

(2) Parity 2. Confinement at home. Normal labour. Attended by midwife. Ante-natal care adequate.

Cause of death: Septicæmia due to the hæmolytic streptococcus, present on admission.

Admitted two days after onset of pyrexia.

(3) Parity 1. Confinement at home. Normal labour. Attended by midwife. Ante-natal care adequate.

Cause of death: Septicæmia due to the hæmolytic streptococcus, present on admission.

Admitted two days after onset of pyrexia.

(4) Parity 1. Confinement at home. Normal labour. Attended by midwife. No record of ante-natal care.

Cause of death: Septicæmia due to the hæmolytic streptococcus, present on admission.

Admitted two days after onset of pyrexia.

(5) Parity 1. Confinement in hospital. Forceps delivery. Ante-natal care adequate.

Cause of death: Septicæmia due to the hæmolytic streptococcus, present on admission.

Admitted one day after onset of pyrexia.

(6) Parity 1. Confinement at home. Normal labour. Attended by doctor and midwife. Ante-natal care adequate.

Cause of death: Septicæmia due to the hæmolytic streptococcus, present on admission.

Admitted one day after onset of pyrexia.

(7) Parity 1. Confinement at home. Precipitate labour. No doctor or midwife in attendance at delivery. Manual removal of placenta. Ante-natal care adequate.

Cause of death: Septicæmia due to the hæmolytic streptococcus, developed after admission.

Admitted four days after onset of pyrexia.

(8) Parity 2. Confinement at home. Forceps delivery. Attended by private doctor. Ante-natal care adequate.

Cause of death: Pelvic cellulitis and septic thrombo-phlebitis due to the hæmolytic streptococcus.

Admitted same day as onset of pyrexia.

(9) Parity 3. Confinement at home. Labour induced for albuminuria. Attended by doctor and midwife. Ante-natal care adequate.

Cause of death: Pneumonia and peritonitis, present on admission. Causal organism not isolated.

Admitted ? days after onset of pyrexia.

(10) Parity 2. Confinement in hospital. Delivery complicated by hydramnios. Manual removal of placenta. No ante-natal care. Unmarried.

Cause of death: Toxæmia due to genital tract infection. Causal organism not isolated.

? Date of onset of pyrexia.

(11) Parity 2. Confinement at home. Normal labour. Attended by doctor and midwife. Ante-natal care adequate.

Cause of death: Pulmonary embolism following genital tract infection. Causal organism not isolated.

Admitted one day after onset of pyrexia.

(12) Parity 1. Confinement in hospital. Normal labour. Developed scarlet fever. Ante-natal care adequate.

Cause of death: Pæumonia and empyema. Causal organism not isolated.

? Date of onset of pyrexia.

(13) Parity 1. Confinement in hospital. Normal labour. Ante-natal care adequate.

Cause of death: Toxæmia due to genital tract infection. Causal organism not isolated.

Admitted one day after onset of pyrexia.

Limitations of Sulphonilamide in the Treatment of Streptococcal Infection.

It would appear from the above table that the majority of deaths (7 out of a total of 13) are due to invasion of the blood stream by the hæmolytic streptococcus. These deaths occurred in spite of treatment with sulphonilamide in the doses usually recommended. In 6 cases septicæmia was present on admission, and in one case developed after the patient had been treated with this drug for several days. The value of sulphonilamide in the treatment of puerperal sepsis would appear to lie rather in its power to prevent the spread of infection from the genital tract than in its ability to combat a blood stream infection once this has become established.

A careful history of the date of onset of pyrexia was obtained whenever possible. It will be seen that in 7 out of the 8 cases dying from an infection due to the hæmolytic streptococcus, the patient had been admitted to hospital and was being treated with sulphonilamide within 48 hours of the onset of pyrexia. It would seem that, in these fulminating infections, sulphonilamide, to be effective, must be given as soon as possible after the onset of pyrexia.

Type of Labour in the Fatal Cases.

Seven fatal cases (4 due to streptococcal infection) occurred after a normal labour and 6 (4 streptococcal) after labour in which some complication was present.

Degree of Ante-natal Care in Fatal Cases.

A history was obtained whenever possible of the amount of ante-natal care received by the patient during her pregnancy.

Of the fatal cases, 11 out of 13 had apparently received adequate ante-natal care. One case had no ante-natal supervision and in one case no record could be obtained.

It would not appear that lack of adequate ante-natal care is a large factor in the maternal mortality of this district.

Environment of the Confinement in Fatal Cases.

Nine of the fatal cases were delivered at home and 4 in hospital. Only 1 fatal case of streptococcal infection occurred in a patient delivered in hospital.

Abortal Cases.

Fifty-eight abortal cases were discharged and 5 died, giving a case mortality of 7.9 per cent. One of the fatal cases died within 48 hours of admission, and if this is excluded the fatality rate works out at 6.5 per cent.

Clinical Course.

Laparotomy was performed for 3 cases of peritonitis. Thirty cases (47.6 per cent.) required operative removal of retained products of conception. The remaining cases received medical treatment only.

The following complications occurred :—

	<i>Cases.</i>
Abscess of leg	2
Bacilluria	6
Gangrene of foot	1
Parotitis	1
Peritonitis	3
Phlegmasia	2
Salpingitis	2
Septicæmia	1

Bacteriology.

	Cases	Died
Hæmolytic streptococcus isolated from the cervix..	10	2
Clostridium Welchii isolated from the cervix.. ..	1	1
Commensal organisms only isolated from the cervix	52	2

Detailed Analysis of Fatal Cases.

(1) Unmarried. Aged 24 years. Parity 0. No previous abortion.

Cause of death: Peritonitis due to infection of genital tract with the hæmolytic streptococcus.

(2) Unmarried. Aged 28 years. Parity 0. One previous abortion.

Cause of death: General peritonitis following septic abortion.

(3) Married. Aged 38 years. Parity 2. No previous abortion.

Cause of death: Septic parotitis following infection of the genital tract with the hæmolytic streptococcus.

(4) Married. Aged 39 years. Parity 4. No previous abortion.

Cause of death: Toxæmia and hæmorrhage following septic abortion.

(5) Married. Aged 26 years. Parity 0. No previous abortion.

Cause of death: Septicæmia following infection of the genital tract with *Clostridium Welchii*.

Parity and Marital State of Abortal Cases.

Fifty-eight of the abortal group were married and 5 were single women.

The parity of the cases is shown by the table below:—

	<i>Cases.</i>
No children	10
One child	12
Two children	11
Three children	10
Four children	6
Five children	5
More than five	9

It will be seen that the majority of the cases admitted were married women with one or more children, suggesting that the economic factor plays a large part in the problem of abortion.

LANGHO COLONY.

Report for Year ended 31st December, 1938.

By Dr. J. Shearer, Medical Superintendent.

On the 31st December, 1938, there were maintained in the Colony 302 male and 332 female colonists, of whom 352 were chargeable to the Manchester Corporation and 282 to other authorities, as under :—

<i>County Boroughs.</i>				<i>County Councils.</i>					
Blackburn	11	Cheshire	..	..	..	3
Burnley	9	Durham	..	..	..	1
Bolton	13	East Sussex	..	..	..	2
Bootle	4	Glamorgan	..	..	..	4
Blackpool	5	Lancashire	..	..	..	118
Bradford	1	Middlesex	..	..	..	7
Barrow-in-Furness	1	North Riding	..	..	..	1
Croydon	3	Surrey	..	..	..	9
Exeter	1	Salop	..	..	..	1
Ipswich	3	West Riding	..	..	..	13
Liverpool	34					—
Newport	1					159
Oldham	4					—
Preston	4					
Salford	21					
Warrington	6					
Wigan	1					
Wallasey	1					
				—					
				123					Total 282
				—					

The total number of seizures during the year was 39,343.

	Severe	Slight	Total	Average	Total Number Maintained
Male	13,432	6,339	19,771	60.0	328
Female	9,140	10,432	19,572	58.0	338
Total	22,572	16,771	39,343	59.0	666

Out of the total of 39,343 seizures, 60 colonists accounted for 12,035 seizures, which brings the average of the remaining 27,308 to 45.

A severe seizure is one in which the colonist has a typical epileptic fit, with twitching and loss of consciousness; a slight seizure being one in which the colonist may only have a sensation accompanied by momentary loss of consciousness without twitching.

The following classification of the incidence of seizures is of interest :—

	Males	Females
Decreased incidence	48	71
Increased incidence	17	15
No change	208	188
No seizures during the year	52	37
Unclassified (including recent admissions)	3	27
	328	338

Eighteen colonists died during the year. Eight colonists were transferred to Crumpsall Hospital for treatment, 6 to Park House, 1 to Monsall Hospital, 2 to Withington Hospital, and 9 transferred back to their own authorities.

The only accidents of any importance during the year were 2 fractures and 2 dislocations. The general health and physical condition of the colonists during the year was very good.

The employment of colonists on the 31st December was as follows :—

	Male	Female
Domestics—The Homes	108	165
„ —Administration block	8	30
Laundry	—	33
General kitchen	—	29
Sewing room	—	39
Engineering	5	—
Carpentry and masonry	10	—
Shoemaking	4	—
Tailoring	1	—
Barbering	1	—
Office and stores	8	—
Farm	22	—
Kitchen garden	8	—
Grounds and sports field	86	—
Sick and Unemployed	41	36
Total	302	332

Details of work done in some of the departments:—

	New Work	Repairs and Alterations
TAILOR'S SHOP—		
Uniform clothing	141	—
Colonists' clothing	—	754
Sundries	15	—
	156	754
SHOEMAKER'S SHOP—		
Boots, clogs, and slippers	210	2,805
Sundries	106	45
	316	2,850
SEWING ROOM—		
Clothing, outer	1,362	1,058
• „ under	1,917	3,831
Socks, stockings, etc.	410	6,712
Uniform	693	—
Farm, overalls, etc.	90	26
Bedding and linen	1,268	1,815
Rugs, carpets, etc.	12	14
Curtains	74	2
Tea cloths, towels, etc.	830	678
Miscellaneous	3	—
	6,659	14,136

At the farming year end (31st March, 1938), the live stock on the farm comprised :—

7 horses.
95 cows and bulls.
315 pigs.
2,743 poultry.

The total acreage farmed is 296½ acres, of which 169 acres is pasturage, 99½ acres is meadowland, and 28 acres is arable land.

During the year ended 31st March the farm transferred or sold—

54,005 gallons of Grade "A" milk.
178,340 hen eggs.
7,935 lbs. poultry.
2,994 lbs. beef (5 head).
71 live cattle.
4,723 lbs. pork (31 pigs).
404 live pigs.
769 cwts. potatoes.
180 cwts. cabbage and sprouts.

In addition, the farm produced for consumption by livestock—

2,300 cwts. hay.
1,300 cwts. ensilage.
500 cwts. potatoes.

The nett profit for the year was £927 13s. 1d.

Recreation.

It is regretted that the much-needed hall for dancing, concerts, cinema, etc., has had to be postponed to the next five-year forecast.

The provision of a separate recreation room for the male colonists for billiards, cards, etc., is again urged.

Scouts and Guides.

It is hoped that the Scout Crew will enter into their new quarters this coming summer, and that their work will benefit accordingly.

The Guides were inspected by the Chief Commissioner (The Hon. Rachel Kay-Shuttleworth) and staff last March, and were highly commended upon the standard of training attained. They were entertained to tea at the Chief Commissioner's residence, Gawthorpe Hall, Padiham, later in the summer.

Handicraft work has been taken up by the Guides with great success, and interest continues unabated.

Both Scouts and Guides had a week under canvas last summer on the Colony properties, and enjoyed the experience to the full. The camps will be held during the coming summer.

Staff Cottages.

This annual topic cannot be dropped: as stated last year, air raid precautions have added a further and pressing reason for the provision of staff cottages.

ROSE HILL CONVALESCENT HOME.
Report for Year ended 31st December 1938.
By Miss A. Ball, Matron.

During the above period 480 patients were admitted, including 159 babies under 5 years of age and 70 direct admissions; 505 patients were discharged.

This shows a decrease of 49 admissions and 11 discharges, as compared with 1937.

The average number of beds occupied during the year was 82·8, a decrease of 6·56 on last year.

The number of children nursed in bed for three or more days (not including heart cases) was 275; this figure includes 52 sore throats and 116 infectious cases; 56 of these infectious cases were transferred to other hospitals.

During the year 94 heart and rheumatism cases were nursed in the Home.

Patients attending the surgery for treatment during the year were:—

Minor ailments	.. .. .	568
Ear cases	.. .. .	59
Eye cases	.. .. .	56
Skin cases	.. .. .	86
		769

Staffing.

- 3 sisters.
- 5 assistant nurses.
- 4 attendant nurses.
- 4 junior nurses.

During the year 6 junior nurses were appointed to other hospitals for further training.

Sickness of Resident Staff.

Two nurses were absent for 44 days.

Sickness of Non-resident Staff.

The teaching staff were absent for 175 days, laundry staff 164 days, and cleaners 70 days during the year.

On the 11th September, 1938, the Rev. A. N. Merchant left the service and the Rev. R. Allen was appointed to succeed him.

Cinematograph entertainment has been continued. Lantern lectures have also been given to the children. The voluntary services of the lecturers have been greatly appreciated.

Scouts, Manchester 2,273.

The Scout and Cub movement is still progressing in the Home, chiefly under the direction of Mr. H. James, Commissioner for Handicapped Scouts, and Mr. R. Lupton, District Scout Master.

On September 11th the Rover and Ranger Committee presented a marquee for the use of the scouts and guides.

Guides—5th Wythenshawe.

The Guide Company and Brownie Pack still continue under the direction of Miss Edge, Commissioner, and Miss Shardlow, Captain.

On May 1st the Commissioners and Officers of the South-East Division of Rangers and Guides presented colours from the 2nd Withington Company to our troupe. The presentation and dedication services were held in the Chapel.

On 10th September the Guides attended a Garden Party given by Lady Simon for extension Guides.

The Scouts and Guides attended the Annual and St. George's Day Services.

School.

The gardens provided for the children in 1936 continue to be a source of interest.

Improvements.

The whole exterior of the Home has been painted during the year some interior painting has also been done.

A small ward has been constructed, which has increased the isolation accommodation by two beds.

Guards have been provided for the fires, and the whole of the radiators in the Home and all heating pipes have been covered.

A.R.P.

During the year 14 nurses and 5 domestic staff received training as wardens; 6 male staff also received training as wardens.

WITHINGTON HOSPITAL.

Report for Year ended 31st December, 1938.

By Mercier Gamble, M.D., Medical Superintendent.

Note.—Before this report was put in the hands of the printers, Dr. Gamble died suddenly after a brief illness.

General.

It is regretted that, at a time when the compilation of this report is normally undertaken, a tremendous amount of time has had to be devoted to civil defence schemes, in which hospitals will play such an important part. During the crisis in September, 1938, a great amount of work had to be done under the most trying conditions, and I would place on record my appreciation of the manner in which the staff so readily responded to these calls.

Although admissions were cut down to the minimum in the period of the international crisis, our total for the year exceeded that in 1937, numbering 14,895, whilst the increase in the number of cases treated at the casualty ward was proportionately higher, totalling 2,816 as against 2,372 in 1937.

The number of acutely-ill patients continues to be high, four-fifths of our patients remaining in hospital for less than four weeks. Further emphasis is given to this statement when it is realised that some 15 per cent. of our beds are occupied by phthisical patients, whose stay in hospital is usually of long duration.

Nursing Staff.

We have been unable to secure our full complement of nurses, a statement, I fear, which will figure in the majority of hospital reports. A proposal to increase the salaries of all qualified staff was approved after the end of 1938, and it is hoped that this step will attract more nurses, and also give the present staff the satisfaction of knowing that their work is receiving recognition.

During the year a policy was adopted of replacing unqualified male nurses (as vacancies arose) by state registered male nurses. A hospital such as this, where surgery is rapidly increasing, finds the need for such men.

The recreational facilities for nurses have been increased by the conversion of the old dining hall into a sports hall, where badminton can now be played under excellent conditions.

I am pleased to record that the health of the nursing staff was satisfactory during the year.

Medical.

There has been no major development calling for special comment in the medical work.

Surgical.

During the year, 2,779 operations were performed, of which almost a thousand were of a gynaecological or obstetrical nature.

The number of emergency operations is increasing year by year. During 1938 there were 745 urgencies admitted for immediate operation, of which 284 were acute abdominal cases; in the previous year the acute abdominal emergencies totalled 175.

These emergency operations involve much late night work, and it is not uncommon to find the operating theatre in full swing in the early hours of the morning.

I would stress the desirability of at least one resident anaesthetist being appointed. The surgical work has increased to such an extent that many hours are spent in the theatres by the resident medical officers.

The large number of patients brought in with head injuries has served to emphasise the need of a neurological surgeon, and it is hoped that when this report appears in print some provision for this service will have been made.

Maternity and Gynaecology.

The number of deliveries during the year was 2,286, an average of 44 per week, whilst the attendances at the ante-natal clinic exceeded 13,000. In addition, 726 mothers attended the post-natal clinic. These figures all show increases on the previous year, but the most striking is the additional three thousand attendances at the ante-natal clinic. In this connection I would stress the urgent need of more spacious and better equipped accommodation for the ante-natal clinic, which has not kept pace with the ever-increasing number of attendances.

The use of the apparatus for producing analgesia in child-birth increased, and I wish to record the gift of a machine from the National Birthday Trust Fund. Nineteen midwives received certificates of proficiency in the use of the apparatus after attending lectures by the visiting anaesthetist and consultant obstetrician.

During the year Ward 6B was converted into a maternity isolation unit, comprising 14 beds, in addition to labour beds. The cubicles, which are built of steel-framed glass partitioning, are most satisfactory

as all cases in which there is any suspicion of possible infection may be placed in separate cubicles. The necessity of closing maternity wards following infection has been almost eliminated since the provision of this new unit.

Orthopædic.

The fracture department continues to deal with an increasing number of patients, and arrangements have been provisionally made to place the fracture service on a larger and better basis, with proper accommodation and staff.

A list of the fracture cases discharged during the year is given below :—

Clavicle	39
Scapula	3
Humerus	41
Radius	109
Ulna.. .. .	7
Radius and ulna	24
Carpus	10
Metacarpals and phalanges.. .. .	31
Spine	12
Pelvis	9
Face	7
Femur	45
Tibia	44
Tibia and fibula	21
Ankle	7
Fibula	7
Patella	10
Foot	28
Miscellaneous (ribs, skulls)	58

Excluding fractured ribs and skulls, the department dealt with 83 more cases than in the previous year, an increase of 22 per cent.

The major portion of the fractures so treated have been cases brought to the casualty ward.

Radium Therapy.

This continues to be carried out by arrangement with the Radium Institute. As forecast in last year's report, cases normally treated at Crumpsall are now taken by this hospital until such time as their treatment under the Radium Institute staff is concluded. Two operating

sessions are set aside monthly, instead of one session here and one at Crumpsall. Although the scheme did not actually commence until the last three months of the year, it is evident that many more patients are likely to receive treatment than hitherto. Before the scheme commenced, *i.e.*, during the first nine months of the year, four operating sessions were held here and four patients treated; during the last three months, six operating sessions were held and 19 cases received treatment.

Another feature of the scheme is that the radium therapist visits the hospital twice weekly and sees all patients who have received, or are due to receive, radium treatment.

Radium continues to be used by the consultant gynaecologists in the treatment of dysfunctional hæmorrhage.

Tuberculosis.

The accommodation for female tuberculosis patients was again over-taxed during the year.

A new departure in this section was the appointment of the resident tuberculosis officer on a permanent basis, instead of a six-monthly one. As so many of the phthisical patients remain in hospital for long periods, it was felt that continuous treatment under the same medical officer would be of definite value.

Physio-therapy Department.

After-care Patients:—

Five clinics are held weekly for after-care patients: three for adults and two for children with congenital and orthopædic conditions. All children with foot deformities are provided with plaster of paris night shoes, these being renewed from time to time as the child grows. 781 attendances were made by 44 children during the year.

At the adult clinics, 965 patients paid 13,453 attendances and the number of treatments given totalled 22,376.

In-patients:—

A new venture has been the treatment of laryngeal tuberculosis with potassium iodide ionisations to relieve pain and make swallowing easier. All cases have experienced relief.

During the spring many cases of hay fever were treated with zinc sulphate ionisation, with beneficial results.

1,002 patients made 10,261 attendances, and received 14,776 treatments.

Artificial Sunlight.

During 1938, 7,156 treatments were given, of which 3,541 were to after-care patients.

X-Ray Department.

6,817 examinations were made during the year, of which 1,247 were at the request of the casualty ward. Seven sessions continue to be held weekly, and there is thus an average of almost 19 examinations per session.

Ear, Nose, and Throat Department.

An extra weekly session was started during the year to relieve the pressure of work. Three sessions are now held weekly, and during 1938 the consultant aurist saw 980 patients.

Eye Department.

The ophthalmologist continues to visit weekly, and 414 ambulatory cases were seen by him at the clinic, in addition to patients on the wards.

Cases requiring operative treatment are, at the request of our consultant, transferred to the Royal Eye Hospital, for treatment by him there.

Almoner's Department.

The almoner resigned during the year, and we had great difficulty in appointing a successor. The hospital was without a certificated almoner from August to the end of the year, and much of the social work could not be undertaken.

STATISTICS RELATING TO PATIENTS TREATED IN THE CASUALTY DEPARTMENT DURING THE YEAR 1938.

ALL CASES—2,797 (excluding 13 patients brought in dead).

Age Groups—

Under 5	.. .. .	278
6—10	.. .. .	241
11—15	.. .. .	342
16—25	.. .. .	602
26—40	.. .. .	700
41—50	.. .. .	276
51—60	.. .. .	178
61—70	.. .. .	114
71—80	.. .. .	50
Over 80	.. .. .	16

Sex—

Males	1,800
Females	997

Numbers brought in by—

Police	554
Privately	2,237
Otherwise	6

Numbers Admitted during each Calendar Month—

January	191
February	170
March	212
April	246
May	269
June	236
July	246
August	249
September	257
October	288
November	214
December	219

Day of Week Admissions—

Sunday	312
Monday	447
Tuesday	383
Wednesday	412
Thursday	389
Friday	412
Saturday	442

Four-hourly Incidence of Admissions—

Midnight—4-0 a.m.	53
4-0 a.m.—8-0 a.m.	38
8-0 a.m.—12-0 noon	898
12-0 noon—4-0 p.m.	727
4-0 p.m.—8-0 p.m.	670
8-0 p.m.—midnight	411

Discharge Details—

Discharged within 12 hours	2,715	} 2,797
Detained over 12 hours	82	
Admitted to Withington Hospital	246	
Transferred to other hospital	37	
Died in casualty ward	9	

Road Accidents involving Motor Vehicles 247

Numbers brought in by—

Police	188
Privately	59
Otherwise	—

Class—

Pedestrians	69
Motorists	44
Cyclists	97
Passengers	—

Numbers admitted during each Calendar Month—

January	20
February	7
March	11
April	17
May	26
June	18
July	26
August	24
September	18
October	35
November	18
December	27

Day of Week Admissions—

Sunday	50
Monday	41
Tuesday	25
Wednesday	27
Thursday	28
Friday	39
Saturday	37

Four-hourly Incidence of Admissions—

Midnight—4-0 a.m.	24
4-0 a.m.—8-0 a.m.	5
8-0 a.m.—12-0 noon	34
12-0 noon—4-0 p.m.	51
4-0 p.m.—8-0 p.m.	62
8-0 p.m.—12-0 midnight	71

Discharge Details—

Discharged within 12 hours	209	} 247
Detained over 12 hours	38	
Admitted to Withington Hospital ..	62	
Transferred to other hospital	5	
Died in casualty ward	4	

Road Accidents not involving Motor Vehicles 440

Numbers brought in by—

Police	150
Privately	289
Otherwise	1

Discharge Details—

Discharged within 12 hours	424	} 440
Detained over 12 hours	16	
Admitted to Withington Hospital ..	37	
Transferred to other hospital	4	
Died in casualty ward	1	

<i>Industrial Accidents</i>	475
<i>Age Groups—</i>	
11—15	23
16—25	126
26—40	191
41—50	73
51—60	47
61—70	14
71—80	1
<i>Sex—</i>	
Males	358
Females	117
<i>Brought in by Police</i>	31
<i>Day of Week Totals—</i>	
Sunday	23
Monday	79
Tuesday	82
Wednesday	83
Thursday	76
Friday	70
Saturday	62
<i>Domestic Accidents—</i>	610
<i>Day of Week Totals—</i>	
Sunday	73
Monday	99
Tuesday	88
Wednesday	95
Thursday	78
Friday	97
Saturday	80
<i>Sports Accidents</i>	174
<i>Accidents at Play (Children)</i>	359
<i>Day of Week Totals—</i>	
Sunday	30
Monday	70
Tuesday	64
Wednesday	43
Thursday	65
Friday	40
Saturday	47
<i>Transferred to other Hospitals</i>	5
<i>Attempted Suicide</i>	10
<i>Sex—</i>	
Males	6
Females	4

ADDENDUM.

ACCIDENT STATISTICS INVOLVING FRACTURES.

Type of Accident—

Road—Motor vehicle involved	44
Road—Motor vehicle not involved	87
Industrial	46
Domestic	70
Sport	52
At play (children)	85
Other accidents	6

— 390

Discharge Details—

Discharged within 12 hours	372	} 390
Detained over 12 hours	18	
Admitted to Withington Hospital	58	
Transferred to other hospital	6	
Died in casualty ward	5	

Brought in by—

Police	90
Privately	300
Otherwise	—

Sex—

Males	249
Females	141

Age Group—

Under 5	49
6—10	46
11—15	65
16—25	65
26—40	59
41—50	36
51—60	32
61—70	26
71—80	11
Over 80	1

PARK HOUSE.
WITHINGTON INSTITUTION.
SWINTON HOME

Park House.

This is the first occasion on which a special report has been made upon the work carried out in the mental wards of Park House. These wards contain 666 beds and admit all rate-aided persons of unsound mind in Manchester, Prestwich, and Failsworth. As no persons from these areas are admitted direct to a mental hospital, the mental department of Park House acts virtually as such, admitting more than double the number of cases admitted to any Lancashire Mental Hospital. The department indeed may be said to act as a filter for patients who are likely to recover within a short time, and are retained in the convalescent ward of the department or transferred to Crumpsall Hospital. In one important respect the patients have a great advantage over those in a mental hospital, in that the resources of a large general hospital are close at hand with a consultant staff and modern diagnostic equipment. The value of this is shown repeatedly by the number of cases in which a definite physical basis for the mental breakdown is discovered.

As patients have to be detained in these wards for a long time because of the shortage of beds at the mental hospitals, it was decided some three years ago to establish occupational therapy classes for men patients in addition to the classes already held for women. The scheme has been a great success and many patients find a new interest in life and are guided back to a state of fitness for their normal daily occupation. Many useful articles are turned out by the occupational centre, but the real value lies in the increased contentedness and interest of the patients.

It is noticeable that the number of admissions to the wards has gradually fallen from a total of 993 in 1933 to 689 during 1938. This drop is largely to be accounted for by the very strict supervision of admissions from outside practitioners and also from other hospitals.

The statistics which follow will be found to be of interest. The medical portion has been compiled by Dr. J. W. Burns and it is noteworthy that this is the first occasion on which a detailed analysis of the types of mental diseases has been attempted :—

	Males	Females	Total
Number remaining on January 1st, 1938 ..	321	321	642
Patients admitted	337	352	689
Patients discharged improved or recovered ..	182	169	351
Number of deaths	74	79	153
Number remaining on 31st December, 1938 ..	296	307	603
Average daily numbers under treatment.. ..	307	310	617
<i>Discharges.</i>			
3 days	11	5	16
Under 17 days	142	94	236
Under 1 month	38	40	78
Under 3 months	49	73	122
Over 3 months	48	75	123
<i>Deaths.</i>			
3 days	5	2	7
Under 17 days	23	26	49
Under 1 month	5	5	10
Under 3 months	6	17	23
Over 3 months	35	29	64

Quinquennial Periods of Admission.

Age	Males	Females	Total
Under 10. 	—	—	—
11—15 	1	1	2
16—20 	20	17	37
21—25 	28	20	48
26—30 	28	25	53
31—35 	28	26	54
36—40 	27	32	59
41—45 	27	43	70
46—50 	40	38	78
51—55 	24	27	51
56—60 	25	28	53
61—65 	36	40	76
66—70 	26	23	49
71—75 	17	14	31
76—80 	9	12	21
Over 80 	1	6	7
	337	352	689

Monthly Incidence of Admissions.

	Males	Females	Total
January	33	23	56
February	28	30	58
March	27	36	63
April	27	30	57
May	23	30	53
June	33	35	68
July	27	26	53
August	30	31	61
September	32	20	52
October	32	30	62
November	26	30	56
December	19	31	50
	337	352	689

	Males	Females
1. <i>Psychoses due to or associated with infection</i> :—		
(a) G.P.I.	14	6
(b) Tabo paresis	6	2
(c) Cerebral syphilis	3	1
(d) With epidemic encephalitis	1	—
(e) With meningitis unspecified	1	—
(f) With other infectious diseases	4	3
(g) Post infectious	1	1
2. <i>Psychoses due to intoxication</i> :—		
Due to alcohol.		
(a) Pathological intoxication	1	—
(b) Delirium tremens	4	—
(c) Korsakows psychosis	4	1
(d) Other types	5	8
Due to drugs or other exogenous poisons.		
(a) Due to metals	—	—
(b) Due to gases.. .. .	—	—
(c) Due to opium and its derivatives.	—	—
(d) Due to other drugs	2	—

	Males	Females
3. <i>Psychoses due to trauma</i> :—		
(a) Traumatic delirium	2	3
(b) Post-traumatic personality disorders	—	2
(c) Post-traumatic mental deterioration	2	—
4. <i>Psychoses due to disturbance of circulation</i> :—		
(a) With cerebral arteriosclerosis	18	5
(b) With cerebral embolism	3	2
(c) With cardio-renal disease	1	2
(d) Other types	10	3
5. <i>Psychoses due to convulsive disorders (epilepsy)</i> :—		
(a) Epileptic deterioration	6	3
(b) Other epileptic states	4	2
6. <i>Psychoses due to disturbance of metabolism, nutrition endocrine function</i> :—		
1. Senile psychoses.		
(a) Simple deterioration	11	22
(b) Presbyophrenic type	4	8
(c) Delirious and confused types	4	8
(d) Depressed and agitated types	5	6
(e) Paranoid types	2	9
2. Involutional psychoses.		
(a) Melancholia	9	16
(b) Paranoid types	3	13
(c) Other types	1	10
3. With diseases of the endocrine glands	1	7
4. Exhaustion delirium	1	1
5. With other somatic diseases	—	2
7. <i>Puerperal psychoses</i>	—	12
8. <i>Psychoses due to new growth</i> :—		
(a) With intracranial neoplasms	—	1
(b) With other neoplasms	4	5
9. <i>Psychoneurosis</i> :—		
(a) Anxiety hysteria	4	5
Conversion hysteria		
(a) Paraesthetic type	1	—
(b) Autonomic type	1	—
(c) Mixed hysterical psychoneurosis	—	1
Psychasthenia or compulsive states.		
(a) Obsession	3	1
(b) Phobia	1	—
(c) Mixed compulsive states	1	3
(d) Hypochondriasis	3	—
(e) Reactive depression	2	5
(f) Anxiety state	5	—

	Males	Females
10. <i>Psychoses of psychogenic origin or without clearly defined tangible cause or structural change</i> :—		
Manic depressive psychoses.		
(a) Manic type	17	26
(b) Depressive type	16	22
(c) Circular type	1	4
(d) Mixed type	1	9
(e) Perplexed type	2	1
(f) Stuporous type	4	6
(g) Other types	—	2
Dementia præcox (schizophrænia).		
(a) Simple type	26	12
(b) Hebephrenic type	33	16
(c) Catatonic type	6	3
(d) Paranoid type	9	2
(e) Other types	3	1
Paranoia.		
(a) Paranoid condition	21	20
11. <i>Undiagnosed psychoses</i>	2	—
12. <i>Without psychoses</i> :—		
(a) Alcoholism	5	6
(b) Drug addiction	—	—
Psychopathic personality.		
(a) With pathological sexuality	—	—
(b) With pathological emotionality	2	3
(c) With asocial or amoral trends	—	3
(d) Mixed types	1	2
Epilepsy	1	2
Mental deficiency.		
(a) Idiot	—	—
(b) Imbecile	5	1
(c) Feeble minded	8	7
Other non-psychotic diseases or conditions.. .. .	1	2
13. <i>Primary behaviour disorders</i>	—	—
Simple adult maladjustment	4	2
Primary behaviour disorders in children.		
(a) Habit disturbance	—	—
(b) Conduct disturbance	1	—
(c) Neurotic traits	—	2
Re-admissions	38	32

W. A. RAMSAY,
Medical Officer.

Withington Institution.

The undermentioned items show the progress of the work at this Institution :—

G Block—The modernization of this block was finished in January, 1938, when ward G 3 was completed.

“A” Home—In May, 1938, this home was re-opened after interior alterations had been effected and painting and decorating had taken place.

E Block—The exterior of this building was painted during the summer months.

G and L Blocks—It was found necessary to renovate the verandah screens on G and L Blocks in July, 1938. These were thoroughly done and the work was completed before the winter began.

Female Side—The main roadway on the female side of the institution has been modernized and is giving entire satisfaction. Provision has been made in the estimates for 1939–40 for the completion of the work.

Church—The interior of the Church had been in a very bad condition for some years, but in August, 1938, a start was made and the building was renovated, painted, and decorated. The first service to be held in the Church after the work was completed was the Harvest Festival Service which was held on the 2nd October, 1938. The brightness of the beautifying and the lovely floral decorations made the Church a very pleasant sight.

Staff—The combined effect of the new staff home and the increase in the salaries of all assistant nurses has done much to settle the staff and make them more contented.

On the 9th May, 1938, the institution was visited by Dr. R. Veitch Clark and Mr. Maslin (Ministry of Health Inspector), and on the 28th June, 1938, Mr. Philips, another Ministry of Health Inspector, also made a complete inspection.

Since the crisis in September, 1938, the institution dining hall has been used for the storage of A.R.P. supplies. The following items are amongst those in store there at the present time :—

2,650 stretchers.

120 additional bedsteads (with the necessary bedding and linen equipment).

300 first-aid satchels, haversacks, etc.

62,000 dressings, bandages, etc., in addition to ointments, etc.

The male post-encephalitis lethargica patients continue to remain in the institution and appear to be very happy indeed. On May 20th, 1938, they went on their first picnic, and were fortunate in choosing a really beautiful day. They went to New Brighton (via the Mersey Tunnel), leaving the institution at 9-40 a.m. and returning at 8-30 p.m. Every one of the 25 men thoroughly enjoyed himself and a letter of appreciation was received from the patients. Throughout the year, by kind permission of the Manager of the Palatine Cinema, the men are allowed to attend matinees, twice weekly, and this privilege is also extended to the female patients.

Constant help is given by the young men and young ladies of the Toc H. in many ways, but especially at Christmastime and with the work of the library. Bed patients are kept well supplied with literature by the Toc H Workers, and their services are greatly appreciated.

As in previous years, the nursing staff gave an excellent concert for the patients and inmates on Christmas Day. Once again, this entertainment was greatly enjoyed by all.

Another feature, much enjoyed at Christmas, was the visit of the Wythenshawe Residents' Band, which was very successful in its efforts to entertain the old folk here.

W. H. WOODHALL,
Master.

Swinton Home.

I have pleasure in submitting my report for the year ending 31st December, 1938.

Number of admissions during the year 43

Number of discharges during the year 31

Number of deaths during the year 3

(Florence J. Marsland, a certified child, died at her own home. She was on license.)

Sickness was rather prevalent during the year among the children. We had 5 cases of measles—these were nursed in the Home, 11 cases of scarlet fever transferred to Monsall Fever Hospital, 11 cases of chicken-pox nursed in the Home, and 2 cases of diphtheria sent to Monsall. As a result of these epidemics, 1 child died at Monsall Hospital from scarlet fever and 2 others died in the Home. A number of the staff were also absent during the early part of the year, due to influenza.

Particular attention has been given to the children's teeth, and about 30 children were sent at different times to Booth Hall Hospital for dental treatment.

Miss A. Crozier, Board of Control Inspector, visited the Home in March.

During the school holidays the children were taken for daily walks, visiting beauty spots such as Clifton Woods, Worsley, and the neighbouring parks. These little excursions were much enjoyed by the children.

By the kindness of the Committee I was once more able to take a party of children, 50 in number, to the seaside. The day was gloriously fine and the outing was a huge success.

The Wolf Cub Pack started by the Chaplain is going strong, and in time I think it will be of immense value to the boys.

During the September crisis all the children were fitted with respirators, and since that time the male members of the staff have been instructed in A.R.P. work.

Just previous to the Christmas school holidays the children gave a very enjoyable concert, consisting of action songs, physical exercises, and dancing. The dancing was especially good and the Chairman and Members of the Committee were delighted with it.

The children spent a happy Christmas. Various organizations from St. Peter's Church entertained the children. The Nursing Staff gave a concert consisting of sketches and songs; this was such a success and the children enjoyed it so much that it had to be repeated.

The whole of the staff have worked during the year in their usual efficient manner.

J. S. KOLTER,
Steward.

THE MANCHESTER JOINT HOSPITALS
ADVISORY BOARD.

Third Annual Report, 1937-38.

The Board has pleasure in submitting its Third Annual Report.

Although considerable interruption was caused by the international crisis, the year under review has been an important one. Agreement has been reached with regard to the proposals for the solution of two major problems, *i.e.* :—

- (1) Co-ordination of the various hospital services relative to the treatment of fractures.
- (2) Co-ordination of thoracic surgery services.

Treatment of Fractures.

The question of unification of orthopædic services within the City has been briefly referred to in the previous Annual Reports of the Board. The object has been to devise a scheme to restore persons who have suffered from injuries involving fracture to maximum functional activity. This includes adequate "follow up" measures so that the injured persons may resume their normal activities in the shortest time possible, having regard to all the requirements of the necessary treatment. To achieve this objective it is of primary importance that all fracture work at each of the hospitals should be concentrated on one consultant surgeon and one resident surgeon acting under the direction of the consultant; it was felt also that the fullest co-operation between the various hospitals could best be achieved by the appointment of an honorary adviser upon orthopædic services.

The report prepared by the medical members of the Unification of Orthopædic Services Committee was approved in principle by the Joint Board as a basis for discussion with the hospitals affected thereby.

Representatives of the hospitals affected attended a later meeting of the Joint Board and it is pleasing to record that all the constituent bodies concerned have intimated their willingness to join in the carrying out of the proposals set forth in the following report.

Report of the Special Surgical Sub-Committee

re

Treatment of Fractures.

PART I.

History.

1. The Ministry of Health on the 18th February, 1935, forwarded to all County Councils and County Borough Councils, Circular No. 1462 enclosing a copy of a report issued by the British Medical Association on the Treatment of Fractures, with the suggestion that in any consideration of the question of organising a "fracture unit" the Council would no doubt consult with the authorities of the voluntary hospitals serving their area.

2. This circular and report were referred by the Public Health Committee and the City Council to the Joint Board for consideration.

3. The report of the British Medical Association contained a summary of the dimensions of the problem, the period of disability, and the existing organised fracture services. In conclusion, the report pointed out that the essentials of an organised fracture unit could be summed up under four headings:—

- (a) Segregation of cases ;
- (b) Continuity of treatment ;
- (c) After-care ;
- (d) Unity of control ;

and a summary of these is set out hereunder:—

4. (a) *Segregation.*—Segregation of the cases into one department, where they can be uniformly handled by a specially trained and experienced staff would seem to be a first essential of any organisation. It is not essential, and possibly not desirable, that fracture cases should be segregated into one special hospital, but it does appear to be vitally important that every hospital which proposes to deal with fractures should segregate its cases and establish one, and only one, organisation. There is probably no hospital in the country which deals with such a large number of cases as to demand the maintenance of more than one organisation. Duplication leads to confusion and to loss of efficiency, and only by establishing one invariable routine of organisation may it be certain that no case can escape from the routine and fail to receive that daily personal supervision of the expert which is so essential. Only by segregation can the staff become sufficiently highly trained, skilled, and experienced in the technical application of modern methods and in the handling of special appliances.

5. It appears to the Committee that the teaching of students and post-graduates would be facilitated and not hindered by such segregation, since the teacher would have at his disposal many instances of the same class of fracture. It would be possible to demonstrate various methods carried out with perfect technique, instead of being limited to the few chance cases which might come to any particular ward. Attendance at such a fracture unit and service as a dresser should be an essential part of undergraduate medical education.

6. (b) *Continuity of Treatment*.—The aim of fracture organisation must be not merely the exact reduction of fractures, but the return of patients to maximum functional activity. Co-ordination of the successive stages of treatment, which should be closely related as integral parts of a unified whole, is essential. The fracture unit staff must be responsible for the treatment of the patient from beginning to end, from the primary reduction to complete restoration of function. In-patients and out-patients should be treated by the same staff. The same continuous case record should follow the patient from the casualty department to the wards and to the out-patient department. Physiotherapy and all remedial measures will be the responsibility of the fracture unit staff.

7. (c) *After-care*.—The Committee point out that excellent primary treatment is of little avail in many fractures unless it is followed up by a phase of active exercise directed to complete restoration of function ; it is this latter phase which is so commonly absent. Moreover, it is suggested that no fracture organisation can be complete without adequate " follow-up " measures. Domiciliary visitations by the right kind of person under the direction of the Almoner is of considerable value in achieving the proper relationship, and, as a result, in securing the regular attendance and willing co-operation of the patient.

8. (d) *Unity of Control*.—It is pointed out that segregation, continuity and after-care achieve their greatest value only if there is unity of control. All the stages of treatment of each case need not only expert supervision, but supervision by one expert. In most large hospitals there is one surgeon who is more interested and more expert in the treatment of fractures than any other ; to him should be delegated the work.

9. In addition, the report suggested the following as a model fracture unit :—

Personnel.—Surgeon in Charge. Such visiting surgeons as are interested in the clinic. Chief Assistant (Registrar, Assistant Surgeon) should possess a special qualification in surgery. Senior Casualty Officer and Resident House Surgeon. Specially trained nursing staff and staff qualified in physical treatment. Almoner.

Accommodation.—Examination room, X-ray room adjoining, plaster and splint room, and Almoner's room in which records are preserved.

Attendance.—The Fracture Clinic (in-patients and out-patients) attended by the Chief Assistant and his staff is held daily. Weekly clinics or bi-weekly clinics are held, attended by the Surgeon-in-charge, the Chief Assistant, and his staff ;

at the same time indicating the method of dealing with ambulatory fractures and in-patient fractures, and recommending the establishment of one rehabilitation centre in each industrial area.

10. Where the fracture service provided is a combination of municipal and voluntary agencies, the report pointed out that it was of great importance to ensure by the closest co-ordination and joint staffing that the patients are under the close and continuous care of the one fracture team.

PART II.

Inter-Departmental Committee.

11. The members of the Executive Committee of the Joint Board had an opportunity of informally discussing this problem with members of the Inter-Departmental Committee appointed by the Home Office, the Ministry of Health, and the Scottish Office on the Rehabilitation of Persons Injured by Accidents upon a visit of the Inter-Departmental Committee to inspect the Fracture Clinic at the Manchester Royal Infirmary on the 16th July, 1936.

12. In connection with this visit to Fracture Clinics, the Chairman of the Inter-Departmental Committee had previously addressed a Questionnaire to all County and County Borough Councils, and voluntary hospitals, as to—

- (a) the average annual number and local distribution of injuries by accident treated in the hospitals of the country—and in particular the number and distribution of fracture cases so treated ; and
- (b) the nature of the existing arrangements at the hospitals for the treatment of *fracture* cases ;

and for the information of the members of the Committee to be appointed by the Joint Board a copy of the replies to this Questionnaire was obtained.

Inter-Departmental Committee's Interim Report.

13. On a later date the Ministry of Health issued Circular 1632 together with the Interim Report of the Inter-Departmental Committee on the Rehabilitation of Persons Injured by Accidents, and in the Circular the Minister expressed the hope that if the Council proposed to establish a clinic for the treatment of fractures, either under the Public Health or the Poor Law Acts, reference will be made to the detailed scheme advised by the Inter-Departmental Committee.

14. This Interim Report states that the general principles of organisation and treatment set out in the report of the British Medical Association were accepted by the Government Departments concerned, and that the object in view was the provision throughout the country of Fracture Services which would place within the reach of every injured person the benefits of the improved methods of treatment with the threefold result of mitigating suffering, reducing the period of disablement, and the loss of working and earning power, and securing wherever possible complete restoration of working capacity.

15. The report then sets out the results of the survey of the present position throughout the country so far as treatment of fractures is concerned, but, in view of the comprehensive details of the local conditions which have been made available to the Special Sub-Committee of the Joint Board, no useful purpose would be served by a reiteration of the survey of the country.

16. As a result of the attention which has been called to the problem of Treatment of Fractures, the report states that a widespread movement for the establishment of fracture clinics has begun and is likely to make rapid headway, but it appeared to the Committee to be most important that this movement should be so directed as to secure that the clinics are established on right lines, and are so distributed as to supply the needs of all to prevent overlapping and to provide the maximum of efficient service.

Scheme of Organisation.

17. The Inter-Departmental Committee state that the object aimed at is to bring all fracture cases under a unified control, and to ensure that the treatment continues under the same supervision until the process of rehabilitation is complete ; and suggest that, on the personnel side, the Department should be placed as a general rule under the charge of one of the visiting surgeons ; and that one or more whole-time assistant surgical officers would be needed, according to the size of clinic and the number of cases treated. Adequate clerical assistance

would be necessary for the keeping of the records of cases treated, and the maintenance of an adequate follow-up system of all cases ; and an X-ray technician must always be available at any time, day or night, so that there may be no delay in the X-ray examination, by which alone the treatment of fractures can be accurately controlled.

Staffing.

18. The Inter-Departmental Committee recommend one departure from ordinary practice in respect of the remuneration of the surgeon in charge. It is not the custom for the visiting staff of a voluntary hospital to receive any remuneration for their services, but, as the surgeon-in-charge of a fracture clinic organised on the lines proposed will undertake much more onerous duties than those usually falling to a visiting surgeon, and will probably be compelled to give up other remunerative work for the purpose, it is desirable that he should receive some honorarium for his services ; otherwise it may be difficult to secure the man best qualified for the work.

19. The report further states that the standard of work for a fracture clinic will depend primarily on the detailed supervision and the personal direction of the treatment of cases by the surgeon-in-charge. The surgeons assisting, whether holding the position of Registrars (or Chief Assistants) or House Surgeons, will not be permanent members of the staff, and it will devolve upon the surgeon-in-charge to train and supervise a succession of such men. This will involve frequent attendance and a considerable part of his time, and it will perhaps be accepted that a staff of four assistants, one of whom will be a chief assistant, would be the maximum staff that could at any one time be supervised and trained. Such a team would be sufficient, with the application of modern methods, to deal with between 3,000 and 3,500 cases a year, of which more than two-thirds in all probability would be out-patients only. On the assumption that the average duration of the in-patient treatment of a case would be two weeks, the accommodation required would be about 40 beds.

PART III.

Terms of Reference.

20. The Joint Board appointed the following members :—

- Chairman of the Joint Board ;
- Deputy Chairman of the Joint Board ;
- Councillor Meadowcroft ;
- The Medical Officer of Health ;
- Mr. W. Cobbett ;
- Mr. A. E. Gaddum ;
- Mr. H. Platt ;
- Professor John Morley ; and
- Professor E. D. Telford

to consider the report of the British Medical Association relating to the Treatment of Fractures and the general question of the unification of orthopædic services.

21. A meeting of this Committee was held on the 21st December, 1936, when Sir Christopher Needham was appointed Chairman of the Committee. After a general discussion of the problem upon information then available, the Committee considered that this was a matter which required specialised knowledge. Accordingly the following Sub-Committee was appointed to consider and submit for the consideration of the Committee a scheme for the unification of orthopædic services within the City :—

The Medical Officer of Health ;
 Mr. Harry Platt ;
 Professor John Morley ;
 Professor E. D. Telford ; with
 Mr. R. L. Newell as convenor ;

and authority was given for this Special Sub-Committee to appoint to its membership without voting power any person possessing special knowledge which, in the opinion of the Special Sub-Committee, would be of material assistance.

22. At the first meeting of this Special Sub-Committee, Professor E. D. Telford was appointed Chairman.

Scope of the Fracture Problem in Manchester.

23. According to the information submitted to the Special Sub-Committee, and an analysis prepared by Mr. Harry Platt, the number of cases treated in 1936 by the voluntary and municipal hospitals, were as follows :—

Voluntary Hospitals	.. .. .	4,925
Municipal Hospitals	.. .. .	1,030

		5,955

24. In 1935 the fracture material of the municipal hospitals consisted of :—

“ First-hand ” cases	.. .. .	535
Transfers from voluntary hospitals	.. ..	238, or
		30 per cent.
		of total.

No figures for 1936 were available, but if the proportion of transfers remained unaltered, the number of "first-hand" fractures for 1936 would be in the neighbourhood of 700. It would appear, therefore, that under ordinary circumstances the combined Manchester Hospitals will be called upon to deal with an average of 5,500 new fracture patients each year.

Relative Proportions of Fractures.

25. The relative proportions of ambulatory fractures (treated throughout as out-patients), and non-ambulatory fractures (treated in the early stages as in-patients), in 1936, were as follows:—

	Ambulatory	Non-ambulatory
Voluntary Hospitals	4,404	521
Municipal Hospitals	219	811

26. From a comparison of information obtained for the two years 1935 and 1936, it appears that there was a slight decline in the in-patient fracture admissions to the voluntary hospitals from 673 in 1935 to 521 in 1936, whereas there was a substantial rise in the in-patient fractures treated in the municipal hospital from 673 in 1935 to 811 in 1936, whilst in both hospital groups there was an increase in the number of out-patient fractures.

Types of Fractures Treated.

27. From information obtained from records at the Manchester Royal Infirmary and Ancoats Hospital, it appears that in the voluntary hospitals the proportion of upper limb to lower limb injuries remains constant, *i.e.*, upper limb fractures constitute two-thirds of the total. In the municipal hospitals, however, the figures for 1936 were:—

Upper limb	52 per cent.
Lower limb	48 ,,

Predominating Types.

Upper Limb.

28. The predominating types of the 2,605 fractures of the upper limb during 1936 were as follows:—

997 Colles fractures	37	} 83 per cent. of the total
566 fractures of the hand	21	
385 forearm fractures in children	14	
312 fractures of the clavicle	11	

2,260

and in respect of these it is interesting to note that the disability resulting from the fracture and the type of "splinting" used in the treatment of the fracture did not prevent the patients from making repeated journeys in comparative comfort—on foot or by tram or bus—to the hospital of their choice.

Lower Limb.

29. The predominant type of the 1,677 lower limb fractures during 1936 consisted of:—

Foot (small bones) fractures	.. ..	283—16 per cent.
Tibia and Fibula combined	.. ..	240—14 ..
Pott's (ankle joint) fractures	.. ..	172—10 ..
Femur (shaft) fractures	.. .. .	122— 7 ..
Neck of femur fractures	.. .. .	102— 6 ..

Period of Hospitalisation.

30. Of the fractures in these groups—

Neck of Femur and Shaft of Femur..	} Required long period of hospital- isation.
Fractures of the leg bones	Required short or moderate periods of hospitalisation.
"Pott's" fractures	.. The majority required a few days' in-patient treatment.
Foot fractures	.. .. The majority treated throughout as ambulatory patients.

Transfer of Patients between Voluntary and Municipal Hospitals.

31. From the figures available for 1935, it appears that of the 773 fractures treated in the three municipal hospitals, *i.e.*, Booth Hall, Crumpsall, and Withington, 238 were transfers from the voluntary hospitals. The reasons for the transfers were not available, but it may be assumed that—

- (a) Lack of accommodation, and
- (b) The social and economic circumstances of the patients are a sufficient explanation.

Circumstances in which Fractures are Sustained.

32. A survey of the 1935 and 1936 figures of the Manchester Royal Infirmary fracture service, based on accurate information which was available in 4,400 of the cases, shows that the comparative incidence

of fractures in the three groups recently adopted by the Inter-Departmental Committee are as follows :—

Street (where a moving vehicle is concerned) ..	18 per cent.
Industrial	12 „
Domestic (including sport, etc.)	70 „

the proportion of children in the 1936 figures being 30 per cent.

Head Injuries.

33. The problem of head injuries is, to some extent, related to the problem of the organisation of fracture treatment ; but, whilst exact statistics are not available from all the hospitals, it appears that in 1936, in 7 hospitals, 159 fractures of the skull were treated. It is probable that an additional 200 head injuries diagnosed as concussion were dealt with during the same period, and this would suggest that the Manchester hospitals must provide for a yearly quota of 400 head injuries of varying severity, of which the majority will require in-patient treatment. This question is more intimately concerned with the future development of a co-ordinated neurological service between the Voluntary and Municipal Hospitals, consideration of which will no doubt be given by the Joint Board in due course.

PART IV.

Objects.

34. The Special Sub-Committee held three meetings, and, with all the information available, gave consideration to the type of scheme to be recommended to the Joint Board to provide prompt and efficient treatment for all fractures coming within the immediate sphere of influence of the Manchester hospitals, at the same time endeavouring to prevent overlapping and duplication of services.

Co-opted Members.

35. In order to assist the Special Sub-Committee, the following Orthopædic Consultants were invited to attend and express their views :—Mr. R. Ollerenshaw, Mr. E. S. Brentnall, and Mr. H. O. Clarke ; and their services in this regard have been appreciated. It is regretted that the Honorary Surgeon of the Manchester Victoria Memorial Jewish Hospital could not attend.

36. It was considered by the Special Sub-Committee that the objects outlined in paragraph 34 of the report could be achieved by one of the following methods :—

- (a) Unification of the fracture service by the provision of one main fracture hospital with subsidiary units ; or
- (b) Establishment of co-ordination between fracture units.

Existing Fracture Units.

37. At the present time fracture patients are being treated at—

Manchester Royal Infirmary ;
 Ancoats Hospital ;
 Manchester Victoria Memorial Jewish Hospital ;
 Crumpsall Hospital ;
 Withington Hospital ;

utilising Booth Hall Hospital for some of the children ; but the Special Sub-Committee is satisfied that only in two hospitals, *i.e.*, Manchester Royal Infirmary and Ancoats Hospital, does the fracture organisation conform to the principles laid down in the reports of the British Medical Association and Inter-Departmental Committee.

Geographical Division.

38. From a résumé of the facts as now submitted, the present units can be divided as follows :—

<i>Northern</i> —Ancoats Hospital	—Large O.P. fracture clinic.
	—Small I.P. clinic.
—Crumpsall	—Small O.P. clinic.
	—Moderate sized I.P. clinic.
—Jewish	—Moderate O.P. clinic.
	—Very small I.P. clinic.
<i>Central</i> —Manchester Royal Infirmary	—Large O.P. and I.P. clinics.
<i>Southern</i> —Withington Hospital	—Small O.P. clinic.
	—Large I.P. clinic.

39. The Special Sub-Committee have been faced with a difficulty, in so far as the accommodation for in-patient fractures at the Voluntary Hospitals is limited, and this fact alone means the recognition of some form of co-ordination (which to some extent exists at the present time), in order to secure transfer and interchange of cases between the Voluntary and Municipal Hospitals.

40. The principles which should govern co-ordination were set out in the Report of the British Medical Association, and are referred to in paragraphs 3 to 8 of this report. The Special Sub-Committee, in accepting these principles, now submit the following proposals respecting the present fracture service, in an endeavour to secure co-ordination and unity of control through all the stages of treatment. These principles should govern the larger problem of the co-ordination of a number of fracture units serving the City, and be applied to those fracture units at present existing for their future co-ordination on the lines suggested.

41. Having regard to the distribution of population (in which recognition has been given to the rapid development which is at present proceeding in the northern and southern portions of the City), and of the convenience of the present "natural" distribution of units which had grown up undirected, as evidenced by the use made of such units, the Special Sub-Committee is satisfied that one hospital cannot supply the whole of the fracture needs of the City.

42. The geographical relationship of the proposed fracture clinics and their accessibility to ambulatory patients has been considered, and the Special Sub-Committee consider it desirable that one fracture centre should be officially recognised for each of the Northern, Central, and Southern portions of the City.

43. Although the fracture services at present existing comply to some extent with the opinions expressed in the Report of the British Medical Association, the Special Sub-Committee realise that further improvements in the services, with a view to co-ordination, could be made. Whilst the establishment of larger complete units on the lines of the recent Orthopædic Unit of the Manchester Royal Infirmary is very desirable, such proposals would present formidable financial and administrative difficulties.

44. Under these circumstances, therefore, the Special Sub-Committee suggest the adoption of a gradual policy towards complete co-operation. During the period of this experimental arrangement, however, a common form of record sheet for "transfer" purposes should be utilised by all hospitals dealing with fractures. This is regarded as essential to any interchange of patients between hospitals.

45. Having regard to the work of the present "natural" distribution of fracture units and the formidable difficulties in obtaining the complete segregation of all fracture cases under one team, the Special Sub-Committee make the following recommendations.

PART V.

Recommendations.

Northern Division.

46. That Crumpsall Hospital should act as the main *in-patient fracture centre* for the Northern Division, and should work in intimate co-operation with Ancoats and the Jewish Hospitals by effecting a free interchange of patients.

47. The Special Sub-Committee is satisfied that Ancoats Hospital should continue to act as a primary fracture centre, both for a limited in-patient service and as the chief out-patient or ambulatory service

in the Northern area. It is hoped in the future that the Jewish Hospital will see the desirability of adopting the principles laid down in the reports of the British Medical Association and Inter-Departmental Committee respecting segregation of fractures. With its limited in-patient accommodation, it should continue to provide a useful moderate-sized out-patient service.

48. This arrangement would permit of such cases as may be desirable being transferred back from Crumpsall Hospital, when they reach the ambulatory stage, for continuation of out-patient treatment at Ancoats and the Jewish Hospitals.

49. The ideal arrangement for the medical staffing of the Northern Division would be that the Surgeon-in-Charge of the fracture service at Ancoats Hospital would be also responsible for the similar service at Crumpsall Hospital. Whilst this cannot be established at present, the achievement of this ideal arrangement, as and when vacancies occur, should be borne in mind by the appointing authority or hospital. In the meantime, however, the closest co-operation should be effected with a view to creating a unified system in the Northern Division of the City.

Central Division.

50. The Special Sub-Committee is satisfied that the present fracture clinic of the Manchester Royal Infirmary can not only efficiently serve the Central Division of the City, but is large enough to fulfil its special responsibilities with regard to the undergraduate teaching, post-graduate training, and investigation and research. Although the in-patient service at the Manchester Royal Infirmary and its Convalescent Hospital is sufficient for a fracture service dealing with 2,500 cases per annum, the in-patient accommodation at times is liable to be overtaxed; thus the necessity for transfer and interchange of fracture patients to both Crumpsall and Withington Hospitals is essential.

Southern Division.

51. The Special Sub-Committee is satisfied that the fracture clinic at Withington Hospital should be encouraged to expand and develop its accommodation for in-patient fractures. The close geographical relationship of this hospital with the Manchester Royal Infirmary makes it unnecessary at present for Withington Hospital to develop a large out-patient and ambulatory service.

52. Due regard, however, must be paid to the rapidly increasing population in the southern portion of the City, especially Wythenshawe, and it is probable that experience may reveal the necessity to establish an out-patient and ambulatory service to meet the needs of this growing population.

PART VI.

Co-operation.

53. Whilst making these recommendations for partial centralisation, the Special Sub-Committee cannot stress too highly the necessity for the closest co-operation of all the units in the three divisions.

54. The problem of fractures, difficult as it is from the point of view of co-ordination, is part only of the much larger problem of the Unification of Orthopædic Services as a whole. The Special Sub-Committee is satisfied that the fullest co-operation can best be achieved by the appointment of an Adviser upon Orthopædic Services. The duty of the Adviser will be to report to the Joint Hospitals Advisory Board upon any matters which in its opinion will further this object.

Rehabilitation Centre.

55. As an outcome of the recommendation of this Special Sub-Committee, including the appointment of an Adviser upon Orthopædic Services, the Joint Board will, in the future, be required to give consideration to the establishment of a rehabilitation centre in connection with the fracture services.

56. In conclusion, the members of the Special Sub-Committee would like to record their appreciation of the assistance rendered by Professor E. D. Telford in this matter, and express their regret that ill-health has necessitated his resignation from the Joint Board prior to the submission of this report.

Co-ordinated Thoracic Surgery Service.

The attention of the Joint Board was also directed to the question of the development of thoracic surgery in Manchester. It was pointed out that if thoracic surgery is to be done efficiently it is of primary importance that it must be concentrated so that not only the operating team, but also the medical and nursing staff who will have the subsequent care of the patient may be experienced in this very specialised type of work. It was realised that this could only be achieved by means of ordered planning. It would be ideal if all patients—tuberculous and non-tuberculous—were treated in the same department at the same hospital.

One of the main questions to be considered, however, in any such plan was that of pulmonary tuberculosis, and the reasons are very obvious why it is not desirable to make a regular practice of treating cases of pulmonary tuberculosis in the wards of a general hospital. Moreover the routine treatment of these cases is one of the duties imposed upon the Local Health Authorities and is undertaken by the Public Health Service.

The opinion was expressed that a co-ordinated Thoracic Surgery Service should be divided to this extent—that the non-tuberculous patients should continue to be treated at the Royal Infirmary, and that the tuberculous ones should have their surgical treatment in Municipal Hospitals and Sanatoria.

The problem can, therefore, be summarised as the attainment of four, in some ways incompatible, ends :—

- (a) Concentration of the work ;
- (b) Separation of tuberculous from non-tuberculous patients ;
- (c) Provision of adequate surgical facilities and personnel for the particular type of treatment to be used ; and
- (d) Continuity of treatment of tuberculous patients.

In the practical application of these considerations to the inception of the co-ordinated thoracic surgery service, it became apparent that some compromise would be necessary at first, as there exists a department of thoracic surgery at the Manchester Royal Infirmary, a sanatorium at Baguley within reasonable distance of the City, and tuberculosis wards at Withington Hospital where a modern operating theatre is provided.

As an outcome of these considerations, the practical suggestions submitted and approved were as follows :—

- (1) That all non-tuberculous cases requiring thoracic surgery should be concentrated at the Manchester Royal Infirmary.
- (2) That surgical treatment of cases of pulmonary tuberculosis which is normally part of routine sanatorium treatment should continue to be given as at present in the various sanatoria.

- (3) That those requiring the services of a surgeon but no elaborate arrangements and no prolonged surgical after-care should be concentrated at Baguley Sanatorium.
- (4) That surgical treatment of tuberculous cases which require all the resources of a full operating team, a modern operating theatre, and a specially experienced surgical nursing staff for after-care, should be concentrated in the tuberculosis wards at Withington Hospital.

The scheme as approved provides for the possibility of patients from outside Manchester being treated at Baguley or Withington. These could only be accepted in consideration of an undertaking being obtained from the local authority of the patient's area of residence to bear all the charges involved. The Public Health Committee have, however, resolved that, so far as the municipal hospitals are concerned, non-Manchester cases should only be taken after all Manchester needs (both for thoracic surgery and all other forms of treatment of pulmonary tuberculosis) have been satisfied.

To make this an effective unit service Mr. Graham Bryce, F.R.C.S., has been appointed as the Surgeon-in-Charge of both of the clinics thus established at the Manchester Royal Infirmary and Withington Hospital ; the necessary steps will be taken to strengthen the consultant anæsthetist staff at Withington Hospital to cope with thoracic surgery sessions which are to be added, and arrangements are being made for a sufficient number of operating theatre nurses and ward nurses to be sent to the Brompton Hospital for a short period of training in thoracic surgery procedure and surgical after-care.

Central Branch of the Manchester Royal Infirmary.

The Board of Management of the Manchester Royal Infirmary were gravely concerned with the proposal of H.M. Office of Works to erect a new Employment Exchange building on the south side of the Central Branch of the Manchester Royal Infirmary in Roby Street. The great height and close proximity of the building would so severely have affected the Central Branch as to jeopardise its continued use as a hospital in the centre of the City. The Joint Board and the Public Health Committee associated themselves strongly with the Board of Management in their efforts to obtain an alteration of the plans in regard to the proposal. It is satisfactory to record that the negotiations with H.M. Office of Works resulted in a settlement which will ensure continuity of the Central Branch of the Manchester Royal Infirmary as an integral part of the City's hospital service.

Directors or Advisers of Clinical Services.

In the First Annual Report of the Joint Board a reference was made to the recommendations of the Committee appointed by the Joint Board to consider the proposals of the Public Health Committee relative to the reorganisation of the consultant services in the municipal hospitals.

One of the many recommendations made and adopted by the Public Health Committee was the desirability of appointing gentlemen possessing experience of the wider problems of hospital policy, teaching, and research, as directors in the main branches of medicine, in the municipal hospitals, with a view to ensuring the proper development of these services.

These appointments were made for an experimental period and were confined to medicine, surgery, and gynæcology, with a view to the co-ordination of these services.

During this experimental period, the Joint Board have from time to time expressed the opinion that the directorships should not be confined to municipal hospitals, but that any such appointment should enable the holders to envisage the clinical services of all the hospitals in the City—both municipal and voluntary.

This experimental period has now ended, and having regard to the opinion of the Joint Board, the Public Health Committee approved the recommendation of the Medical Officer of Health that the directorships as limited to the municipal hospitals be not renewed. This recommendation was addressed to the Joint Board expressing the view that if such honorary directorships be continued they should be attached to the Joint Board and cover all the constituent hospitals in their functions ; so that the true perspective of the services involving all the hospitals in the City be available to the Joint Board as the body entrusted with such work.

The Joint Board is now giving consideration to this expression of opinion—the duties which should be attached to these positions and the method to be adopted in connection with the appointment thereof. A tentative decision has already been arrived at whereby these positions in the future will be designated as honorary advisers.

Hearing Aid Clinics.

A circular letter from the National Institute for the Deaf which has been addressed to the voluntary hospitals of the City, suggesting the establishment of a hearing-aid clinic in connection with the hospital has been referred to the Joint Board for consideration.

The circular letter stated that the proposal was made in consequence of the experience of the Institute in dealing with large numbers of deaf and deafened persons who have consulted the Institute on the need and choice of aids to hearing.

A brief survey of the position in Manchester was submitted to the Joint Board. From this it appeared that this problem would require consideration and consultation with the constituent bodies affected. The matter has, therefore, been referred to the Executive Committee of the Board for consideration and report.

In the meantime the various hospital authorities are being requested to take no further action on the letter from the National Institute for the Deaf until such time as a decision thereon has been taken by the Joint Board.

Resignations, etc.

The Board accepted with great regret the resignation of Professor E. D. Telford, F.R.C.S., who has given invaluable help in every phase of the Board's work. It also regrets the resignation of Mr. F. E. Warbreck Howell, on his leaving the City, as Joint Honorary Secretary, but is happy to state that Mr. R. H. Adcock, Town Clerk of Manchester, has accepted the invitation to fill the vacancy.

In submitting this Annual Report, the Board wishes to record that it continues to receive the co-operation and support of its constituent bodies and that in its view the aims, as stated in the Constitution and Functions, are being gradually attained.

C. T. NEEDHAM,
Chairman.

R. G. EDWARDS,
Vice-Chairman.

WORK DONE BY THE MIDWIVES' SECTION.

This section deals with:—

- A. INSPECTION OF MIDWIVES under the Midwives Acts, 1902–1936.
- B. DOMICILIARY NURSING VISITS TO MOTHERS AND BABIES, in connection with schemes for maternity and child welfare under the Maternity and Child Welfare Act, 1918.
- C. INVESTIGATION OF CASES OF—
 - (i.) Maternal death.
 - (ii.) Puerperal fever and pyrexia.
 - (iii.) Emergency neo-natal deaths in midwives' practices.
 - (iv.) Pemphigus neonatorum.

STAFF—

Inspector of Midwives.

Assistant Inspector of Midwives.

4 Maternity Nurses.

3 Ophthalmic Nurses (see special report).

53 Municipal Midwives (see report below).

A. *Inspection of Midwives.*

The Midwives Act, 1936, came into force on July 31st, 1937. Section 1, (1) of the Act is as follows:—

“ It shall be the duty of every local supervising authority within the meaning of the principal Act (in this Act referred to as an “ authority ”) to secure, whether by arrangements with welfare councils or voluntary organisations, for the employment by those councils or organisations of certified midwives as whole-time servants or by itself employing such midwives, that the number of certified midwives so employed who are available in its area for attendance on women in their own homes as midwives, or as maternity nurses during childbirth and from time to time thereafter during a period not less than the lying-in period, is adequate for the needs of the area.”

The voluntary organisations undertaking domiciliary midwifery in Manchester are St. Mary's Hospital and the Manchester and Salford District Nursing Institution.

The City Council has entered into agreements with the Board of St. Mary's Hospital to continue to carry on its district practice, and with the Manchester and Salford District Nursing Institution, by which the institution will provide the equivalent of four full-time midwives distributed amongst its various homes.

When the Act came into force 50 municipal midwives were appointed, who began to work in August, 1937. Some midwives continued in independent practice.

In September, three more municipal midwives were appointed, and as the independent midwives surrendered their certificates, three more were appointed.

At the end of 1938 there were 56 municipal midwives.

During 1938 the municipal midwives attended—

2,787 confinements as midwives.

472 confinements as maternity nurses.

53 miscarriages as nurses.

Beginning in July, 1938, the municipal midwives visited at their own homes all mothers discharged from the municipal hospitals from the tenth to the fourteenth day.

This service has been very much appreciated by the mothers, particularly by those with their first babies.

A total of 5,141 visits were paid up to the end of the year.

The fees fixed by the City Council for the services of municipal midwives were :—

For attendance at a first confinement—

40s. as a midwife.

35s. as a maternity nurse.

For attendance at any other confinement—

35s. as a midwife.

30s. as a maternity nurse.

For attendance at a miscarriage—20s.

For the working of the service the city is divided into ten areas and the midwives work in groups of from 4 to 9, with some sub-groups. This allows mothers in each district a reasonable freedom of choice of midwife, and allows midwives to relieve each other for off-duty time, holidays, and sickness. Each midwife has 24 hours off duty in every week, and one week-end of 48 hours each month. A telephone has been provided for each midwife.

The Midwives Act, 1936 (Section 5), provided that—

(a) if a midwife surrendered her certificate voluntarily within three years after July, 1936, she would be entitled to compensation equal to three times her average net income ;

(b) if an authority considered that a midwife was incapable by reason of age or infirmity of mind or body of efficiently performing her duties, it might direct her to surrender her certificate, with payment of compensation equal to five times her annual net income.

In accordance with the conditions of service of the Manchester Corporation Superannuation Act, midwives on attaining the age of 65 years were held to be "incapable by reason of age" to continue in practice.

The following table gives the number of midwives compensated and the total amount of compensation paid up to the end of 1938:—

Year	Number of Midwives Retired Voluntarily	Amount of Compensation Paid	Number of Midwives Retired Compulsorily	Amount of Compensation Paid
1937	18	£ 3,290 s. 16 d. 3	*13	£ 5,054 s. 13 d. 9
1938	7	1,711 8 2	1	87 6 8
Total	25	£5,002 4 5	14	£5,142 0 5

* This figure includes two midwives retired on account of infirmity.

In addition to the above, £42 14s. 2d. has been paid to four midwives who practised partly in Manchester and were compensated by other authorities.

Total compensation paid is £10,186 19s.

At the end of 1938 there were 22 midwives remaining in independent practice.

During 1938, 3,740 applications for municipal midwives were received. During that period 3,259 patients were delivered, 245 were transferred to hospital on account of unsatisfactory conditions before or during labour. In 53 the pregnancies ended before the 28th week.

136 applications were withdrawn on account of removal from the district and for other domestic reasons.

Of the cases attended, 729 applied for assistance, of which 354 were assessed to pay part fee and for 375 no charge was made.

Visits made to midwives in their own homes	450
* Midwives interviewed at the office	160

The municipal midwives report at the Public Health Office once a fortnight. They are seen by Supervisors of Midwives and all matters concerning their work are discussed and advised upon.

* This figure does not include the routine fortnightly visits made to the office by the municipal midwives.

Total registered births for the City (adjusted figure)—

Live births	11,025
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Still births	507
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	11,532
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Total notified births (live and still unadjusted figure) ..	13,149
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Occurrence of Notified Births.

(1) Births at Home—

(i.) Taken by midwives, including cases in which midwife acted as maternity nurse (figures based on yearly return of cases made by midwives to L.S.A.)	4,494
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(ii.) Taken by doctors (no midwife present)†	134
--	-----

(iii.) Taken by St. Mary's Hospital District Staff in Manchester area	736
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	5,364
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(2) Births in Institutions—

(i.) Hospitals	6,669
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(ii.) Maternity homes registered under Nursing Homes Registration Act, 1927.. ..	1,116
--	-------

	7,785
--	-------

	13,149
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† No midwife present means no midwife who has given notice of intention to practice. The attendant ranges from a fully-trained resident midwife to a relation of the mother or a handy woman.

Number of Midwives in Practice.

158 midwives gave notice of intention to practice during 1938—

53 municipal midwives ;

29 employed in maternity nursing homes ;

23 attached to district nursing associations ;

53 in independent practice.

Of the 53 in independent practice—

3 were appointed to the municipal service ;

10 retired with compensation (1 was compulsorily retired) ;

9 retired voluntarily under section 5 of the Midwives Act, 1936 ;

4 removed from the area.

At the end of the year there were 36 independent midwives ;
15 of these resided outside the City.

An analysis of all the cases taken by midwives is given in the following table :—

Table I.

Analysis of Cases taken by Midwives who notified intention to practice.

Midwives notifying intention to practice	Number of Midwives	Midwife only at the Case		Midwife with Doctor called in		Midwife as Maternity Nurse	Total Number of Cases	Per cent. of Births in City
		Primi-paræ	Multi-paræ	Primi-paræ	Multi-paræ			
1. BIRTHS AT HOME.								
(a) 1. Municipal midwives.. . . .	56	410	1,834	205	338	472	3,259	23·05
2. Cases taken by 3 of these midwives before appointment	3	25	97	3	4	6	135	5·84
(b) Midwives retired or removed during the year	12	17	74	7	4	6	108	0·82
(c) Independent midwives living in Manchester area	22	77	262	45	87	140	611	4·65
(d) Independent midwives living outside Manchester area.. . . .	14	12	54	17	30	19	132	1·00
(e) Independent midwives retired or removed outside Manchester area	2	1	2	..	..	..	..	..
Midwives employed by District Nursing Institution :—								
Manchester	22	24	141	17	12	52	246	1·79
Salford .. . . .	..						
County Nursing Association	1							
	129	566	2,464	294	475	695	4,494	34·17
2. BIRTHS IN INSTITUTIONS.								
Midwives employed in registered Nursing Homes and having no resident medical practitioner ..	29	283	172	36	10	338	839	6·30
	158	849	2,636	330	485	1,033	5,333	40·47

Total number of cases taken by midwives shows a decrease of 315.
There was an increase of 132 of all notified births.

The following table shows the amount of work done by the 21 midwives residing in Manchester remaining in independent practice :—

TABLE II.

Practices with over 100 cases per annum	3
„ „ under 100 and over 50	1
„ „ under 50 and over 20	4
„ „ under 20	10
„ „ no cases taken	3
	Per cent. Notified Births

Distribution of all Domiciliary Cases (based on Notified Births).

5,364 births took place in domiciliary practice .. = 40·78

Distributed as follows :—

See Table I.—

Midwives only at the birth	3,030	=	23·05
Registered medical practitioner summoned by midwife under C.M.B. rules and present at birth	769	=	5·84
Registered medical practitioner with mid- wife as maternity nurse	695	=	5·28
Registered medical practitioner (no mid- wife present)	134	=	1·01
St. Mary's Hospital District Service ..	736	=	5·59

The proportion of cases taken by midwives and midwives acting as maternity nurses, calculated on *registered live* births, is as follows :—

	Per cent.
1933	52·34
1934	52·61
1935	53·69
1936	44·83
1937	44·71
1938	40·76

Supervision and Instruction of Midwives.

Midwives were temporarily suspended from work on 106 occasions on account of contact with infection or being themselves liable to be a source of infection.

As there is a staff of trained nurses available to take over, midwives are encouraged to report cases with raised temperature before they become notifiable under the Puerperal Pyrexia Regulations.

Suspensions.

1933	.. ..	92 = 1.57 per 100 cases taken.
1934	.. ..	79 = 1.31 " "
1935	.. ..	120 = 1.98 " "
1936	.. ..	95 = 1.86 " "
1937	.. ..	99 = 2.05 " "
1938	.. ..	106 = 2.79 " "

Rules of the Central Midwives Board.

Rule E 17 (a) has been amended. The midwife is now required to attend the patient for 14 days after the confinement. This amendment came into force on January 1st, 1937.

No serious breach of the rules of the Central Midwives Board has occurred during the year.

Handywomen.

In cases where it was ascertained that a handywoman had been in attendance at a confinement she was visited and her attention was drawn to Section 6 of the Midwives Act, 1936, which gives a local authority power to apply to the Minister of Health to prohibit the attendance of unqualified persons as maternity nurses.

Practical Training of Midwives.

Eight midwives are approved as "teacher midwives" by the Board to take pupil midwives for district experience.

Seventy-six pupil midwives received district training during 1938.

Payment to Midwives by the Local Authority.

By resolution of the City Council, August 3rd, 1932,	£	s.	d.
10s. may be paid to a midwife who loses her fee because she has sent a booked case to an Infant Welfare Ante-Natal Clinic and the case has subsequently been transferred to hospital prior to or during delivery. Two claims			1 0 0

Records of Calling-in Medical Aid.

Records of calling in medical aid in accordance with the Rules of the Central Midwives Board were sent in by the independently practising midwives, by midwives from District Nursing Associations, and by midwives in Registered Maternity Homes having no resident medical officer. The number of records sent and the number of applications

for payment of their fee by registered medical practitioners is shown below :—

TABLE III.

	Number of Midwives' Own Cases	Number of Records sent	Number of Records sent per 100 Cases	Number of Applications for Payment	Number of Applications made per 100 Records
1932	5,474	2,538	46.3	1,500	59.1
1933	4,901	2,413	49.2	1,455	60.2
1934	5,033	2,470	49.0	1,477	59.9
1935	4,975	2,552	51.2	1,642	64.3
1936	4,836	2,637	54.5	1,617	61.3
1937	4,588	2,703	58.6	1,663	61.5
1938	3,799	2,612	68.7	2,046	78.3

This includes 141 medical records sent for unsatisfactory condition of mother or baby in cases discharged from Hospital before the 14th day. These were for :—

MOTHER			BABY	
Raised Temperature	Mastitis	Other unsatisfactory conditions	Discharging Eyes	Other unsatisfactory conditions
11	16	34	55	25

Number of cases referred by midwives to ante-natal clinics :—

1930	405	— 6.59 per cent. of their cases.
1931	338	— 5.78
1932	211	— 3.85
1933	208	— 4.24
1934	294	— 5.84
1935	434	— 8.72
1936	667	— 13.79
1937	863	— 18.77
1938	1977	— 52.04

The apparently large increase in the number of midwives' cases sent to the ante-natal clinics during 1938 is due to the midwives being advised to send a written record with all patients to the clinic, including those who were already attending the clinic when they booked.

As this instruction was only given in May of this year, the figure does not yet give a true record of all the women attending the ante-natal clinic, who were later delivered by midwives.

The next table shows how many calls for assistance were made, and by whom, during the ante-natal, intra-natal, and post-natal periods :—

TABLE IV.

	Records sent to Doctors		Records sent to Ante-natal Clinics
	Assistance in labour and puerperium	Assistance during pregnancy	
Midwives in private practice ..	1,849	442	1,977
Midwives of the District Nursing Association	89	14	13
Midwives in Maternity Homes ..	213	5	2

11·76 per cent. of all records of sending for medical aid by midwives for emergencies during labour and the puerperium were for delayed labour and 24·54 per cent. for ruptured perineum. This is respectively 7·7 per cent. and 17·9 per cent. of all their cases, and compares with 7·7 per cent. and 14·2 per cent. for 1937.

42·5 per cent. of all the records were sent for assistance during labour. 14·08 per cent. were for unsatisfactory conditions occurring during the puerperium. Of these 25·6 per cent. were for the infant.

Payment of Medical Fees.

Payment of fee of the registered medical practitioner called in by the midwife, in accordance with the Rules, is made by the Local Supervising Authority under the authority of the Midwives Act, 1918, section 14 (1). The Local Supervising Authority has power to recover the fee from the patient, or husband, if they have the means to pay.

Particulars of applications in 1938 for the payment of fees :—

	1937	1938
Number of families whose incomes were below the scale ..	489	536
„ „ „ „ „ above the scale ..	1,021	1,280
„ „ „ who paid doctor themselves	14	14
Conditions not fulfilled	20	30
No account sent (see Ophthalmia Neonatorum Regulations, 1926)	119	186
Number of fees paid by the Local Supervising Authority ..	1,643	2,002

Provision of the Services of Consultants for certain Puerperal Complications.

Second Opinion.—Under the Notification of Puerperal Pyrexia Regulations, 1926, such a service has been provided by the City. A fee of £3 3s. for the consultation is payable by the Public Health Committee.

	1937	1938
The number of such fees paid was	10	13

Obstetric Difficulty.—In connection with the Council's scheme for maternity and child welfare under the Maternity and Child Welfare Act, 1918, the provision of a consultant service was extended in 1930 to allow medical practitioners to call in a consultant in the event of obstetric difficulty arising during the ante-natal period, labour or the puerperium. The fee is fixed at £5 5s. inclusive.

	1937	1938
The number of such fees paid was	18	23

Consultants must, in every case, be selected from a list of approved practitioners engaged solely in gynæcological and obstetric practice in the city.

Payments made under the above Acts for the period January 1st to December 31st, 1938, were as follows :—

Midwives Act, 1918.

	£	s.	d.
Paid to doctors.. .. .	2,186	13	6
Recovered from the patients	692	17	9

Puerperal Pyrexia Regulations, 1926.

	£	s.	d.
Paid to consultants	31	10	0
Recovered from the patients	—		

Maternity and Child Welfare Act, 1918 (Difficult Labour).

Paid to consultants	120	15	0
Recovered from the patients	10	16	6
Total paid	2,338	18	9
Recovered	703	14	3

The average nett cost to the Council per case for medical assistance in cases booked by midwives is 12s.

B.—Domiciliary Nursing Visits to Mothers and Babies.

The mothers and babies who are nursed or helped by the 4 trained nurse-midwives on the staff of the Department are referred to them from the following sources :

- (a) Midwives.
- (b) Registered medical practitioners, under the Puerperal Fever, Puerperal Pyrexia, and Pemphigus Neonatorum Regulations.
- (c) Health visitors.
- (d) Maternity and child welfare clinics.

(a) Midwives.—Midwives' cases may be—

- (i.) Normal puerperal cases with some septic condition.
- (ii.) Normal puerperal cases when the patient is in contact with an infectious disease, such as measles, and isolation cannot be obtained.
- (iii.) Abnormal puerperal cases, in which either mother or baby has some condition diagnosed as septic, or thought likely to be so.
- (iv.) Cases in which there is some unsatisfactory condition of mother or baby at the end of the ten-day lying-in period which requires further nursing, *e.g.*, inflamed veins, premature baby.

(b) Cases from Doctors.—An offer of skilled nursing is made to every practitioner who notifies a case under the Puerperal Fever, Pyrexia, or Pemphigus Neonatorum Regulations. The nurse then works under the direction of the patient's own doctor.

(c) *Health Visitors' Cases.*—The nurse visits because the health visitor reports some abnormal condition of mother or baby, such as cracked nipples, prematurity, or insufficient breast milk.

(d) *Maternity and Child Welfare Clinics.*—The doctor at the clinic asks to have a baby treated for some condition, such as an unhealed umbilicus. A large number of cases for re-establishment of breast feeding come from the clinics.

The visits paid by the nurses under the above headings in 1938 were as follows :—

	No. of Visits.
Puerperal Pyrexia, Raised Temperature	1,492
Puerperal Melancholia	11
Mammary Abscess and Mastitis	885
Phlebitis	167
Cases of infection in the house	137
Mother still unsatisfactory at end of lying-in period.. ..	150
Cases of Abortion	49
Pemphigus Neonatorum and other skin conditions	1,101
Septic and unsatisfactory Umbilicus	742
Spina Bifida	26
Prematurity of Infant	995
Promotion and re-establishment of breast-feeding	112
Unsatisfactory infants	62
	<hr style="width: 100%; border: 0.5px solid black;"/>
	5,929
	<hr style="width: 100%; border: 0.5px solid black;"/>

Artificial Feeding.—On October 1st, 1935, the revised rules of the Central Midwives Board in connection with artificial feeding came into force, Rule E 27 (b).

This rule now requires that all cases in institutions where it is proposed to substitute artificial feeding for breast feeding must be notified to the local authority. Prior to this revision, the rule only applied to practising midwives.

During the year 342 notifications of recourse to artificial feeding were received, 86 from midwives and 256 from institutions.

In 148 of the total cases it was stated that it was supplementary and not a complete change-over. Of the remainder, the causes given were :—

Poor health of the mother	78 cases.
On the advice of the doctor	21 ,,
Mastitis	22 ,,
Deformed and depressed nipples	17 ,,
Social reasons	16 ,,
Baby being adopted	6 ,,
Secretion failed	21 ,,
Other causes	13 ,,
	<hr/>
	194
	<hr/>

Re-establishment of Breast Feeding.—All domiciliary cases in which artificial feeding has been resorted to are visited by the health visitor ; if it is thought there is any chance of promoting or re-establishing breast feeding, they are referred to the special maternity nurse.

Of the 12 cases taken by the nurses, 4 were successful and 5 partly successful.

Of the 3 which were unsuccessful, the cause was attributed to :—

Lack of co-operation of mother in 1 case.
Poor health of the mother .. ,, 1 ,,
Lack of secretion ,, 1 ,,

Weakly and Premature Infants.—995 visits were paid by the special nurses to weakly and premature babies.

63 babies were attended, including 5 sets of twins. The special nurses attended till the babies reached 7lbs. in weight, when they were passed on to the health visitors, who continued to pay regular visits. The results when last seen by the health visitors were :—

Doing well 43—21 were completely and 22 partly breastfed.
Fairly well 19— 5 ,, ,, ,, 14 ,, ,,
Removed 1
Died 0

The weights of 9 babies who are doing well were at birth between 3 and 4lbs.

c. *The Investigation of Cases of—*

- (i.) Maternal death.
- (ii.) Puerperal Fever and Pyrexia.
- (iii.) Pemphigus Neonatorum.

Maternal Deaths.

49 deaths from child-birth occurred amongst Manchester mothers and were investigated in accordance with the request of the Ministry of Health.

It is satisfactory to record a decrease in the deaths from abortion—9, as against 15 last year.

The following table gives the classification of all the maternal deaths.

TABLE V.
Causes of Death in Child-birth during 1938.

Cause	Normal Full-term Labour	Abnormal Full-term Labour	Abortion	Total	Rate per 1,000 Registered Live and Still Births	
					1937	1938
*Puerperal Sepsis	6	7	3	16	1·34	1·39
Other causes	27 (6 undelivered)		6	33	2·85	2·86
				49	4·19	4·25

* One of these cases (a case of abortion) had been referred to the Coroner and was not notified as puerperal sepsis.

TABLE VI.
Attendant at Confinement when Mother subsequently Died.

	MIDWIVES' CASES		DOCTORS' CASES		Hospitals and Nursing Homes	Hospital extern. District	No attendant at Confinement	EARLY PREGNANCY	
	Midwife only	Doctor present, Midwife called in by Midwife according to C.M.B. Rules	Doctor with Midwife as Maternity Nurse	Doctor only, No skilled nursing				Abortions	Undelivered
Puerperal Sepsis ..	2	2	3	..	6	..	..	2	..
Other Causes ..	(4 admitted to Hospital for delivery) 3 died undelivered	11	3 admitted to Hospital 2 of these died undelivered	..	13 died 3 undelivered	..	..	5	1
Total ..	15	15	6	..	19	..	..	7	1

For number of cases taken, see page 250 of the Report.

The next table shows incidence of puerperal sepsis and the percentage of deaths.

	Puerperal Sepsis Incidence and Case Mortality	
	Cases of Puerperal Sepsis per 1,000 Notified Births	Mortality per cent. of Notified Puerperal Sepsis Cases
1932	7·32	17·7
1933	10·29	16·16
1934	10·18	9·76
1935	9·20	20·16
1936	8·78	17·39
1937	6·22	21·11
1938	6·62	18·39

Analysis of 33 deaths due to other causes than puerperal sepsis :—

Abortion due to placenta prævia	1
Septic endometritis due to therapeutic abortion	1
Toxæmia of pregnancy { eclampsia	6
{ hepatitis	1
Toxæmia following abortion	2
Ante-partum hæmorrhage	4
Surgical shock	1
Obstetric shock	3
Obstetric shock following post-partum hæmorrhage	2
Obstetric shock following craniotomy	1
Post-partum hæmorrhage	1
Pneumonia following difficult delivery	1
Pneumonia following Cæsarean section	1
Peritonitis following placenta prævia	1
Pulmonary embolism	2
Deaths under anæsthetic { during delivery	3
{ for removal of placenta	1
{ for mastitis	1

There is a decrease of 6 cases in the deaths from abortion and early pregnancy, these being :—

Abortion 2 Early pregnancy .. 4

The following table gives the figures for the last 5 years :—

Year	No. of Deaths	Percentage of Maternal Deaths
1934	18	30·5
1935	11	25·5
1936	17	28·8
1937	15	31·9
1938	9	18·3

In addition to the deaths in the foregoing tables, there were 11 deaths where child-birth was not the primary cause of death, and 32 deaths, including 9 from puerperal fever, where the home address was outside the City.

Puerperal Pyrexia.

Puerperal pyrexia covers all conditions previously notified as puerperal fever and puerperal pyrexia.

223 cases of puerperal pyrexia were notified during the year.

Every case is investigated at the patient's home address, and by interviewing the attendants at the labour if thought desirable.

The ascertainable causes of pyrexia were :—

Puerperal sepsis	87
Incomplete abortion	11
Simple abortion	3
Threatened miscarriage	4
Metrorrhagia	1
Inevitable abortion	5
Abortion	2
Salpingitis	1

Table VII. shows the distribution of the cases.

TABLE VII.
Analysis of Cases of Puerperal Sepsis and Puerperal Pyrexia.

	Number of Cases	Abortion	Deaths from Abortion	Full-term and Premature Labour	Deaths at Full Term & Premature Labour
Puerperal Sepsis		At 2-3 months .. 9	1	Normal labour .. 58	6
		„ 4 months .. 3	1	Abnormal labour . 16	7
		„ 5 „ .. 1	—		
		„ 6 „ .. —	—		
		No information .. —	—		
	87	13	2	74	13

The number includes 2 full-term labours, delivered in Manchester Hospitals, but brought in from outside.

Puerperal Pyrexia		At 3 months .. 11	—	Normal labour .. 55	—
		„ 4 „ .. 2	—	Abnormal labour.. 41	1
		„ 5 „ .. —	—		
		„ 6 „ .. —	—		
		No information .. —	—		
109	13	—	96	1	

The number includes 18 full-term cases brought in from outside districts and delivered in Manchester Hospitals.

The attendant at the confinement and the subsequent nursing care of the cases is given in Tables VIII and IX.

TABLE VIII.—Analysis of Cases of Puerperal Sepsis and Puerperal Pyrexia.

	MIDWIFE						DOCTOR, Midwife acting as Maternity Nurse			DOCTOR, No Skilled Nursing			INSTITUTION			HOSPITAL, External District		
	Midwife alone			Doctor present, called in according to C.M.B. Rules			Number of Attacks	Attack Rate per 1,000 Cases taken	Number of Deaths	Number of Attacks	Attack Rate per 1,000 Cases taken	Number of Deaths	Number of Attacks	Attack Rate per 1,000 Cases taken	Number of Deaths	Number of Attacks	Attack Rate per 1,000 Cases taken	Number of Deaths
	Number of Attacks	Attack Rate per 1,000 Cases taken	Number of Deaths	Number of Attacks	Attack Rate per 1,000 Cases taken	Number of Deaths												
PUERPERAL SEPSIS, 87 Cases	14	..	2	11	..	2	..	6	..	3	..	..	..	..	11	..	..	..
Labour and pre- mature labour 74	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Abortions 13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

PUERPERAL PYREXIA, 109 Cases	8	..	..	8 (1 de- livered in Hosp'l)	..	..	..	10 (1 de- livered in Hosp'l)	..	..	..	..	..	..	5	..	..	..
Labour and pre- mature labour 96	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Abortions 13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total cases 196	..	7.2	..	..	24.7	..	..	..	23.0	..	..	..	14.5	..	..	21.7	..	..

NOTES:—For number of cases taken, see page 250.

For the mortality rates, see table V.

Attack rates are not worked out for abortions, as the number of cases of abortions is not known.

* Childbirth not the primary cause.

TABLE IX.

	Nursed in Monsall	Died	Per- centage deaths	Nursed in other hospitals	Died	Per- centage deaths	Nursed at home	Died
Puerperal Pyrexia.	115	10	8.6	60	6	10.0	21	0

The cause of death in one other case notified as puerperal pyrexia, and not included in the maternal deaths, was :—

At other institutions—

1 tuberculosis.

Investigation into the source of Puerperal Pyrexia.

In accordance with the request of the Ministry of Health, beginning the end of August, additional investigations were made as to the causation of puerperal pyrexia :—

1. Swabs were examined from the nose and throat of all midwives who attended cases of raised temperature.
2. Letters were sent to all medical practitioners who notified cases of puerperal pyrexia not immediately transferred to hospital advising them that swabs from the cervix and throat of the patients could be sent to the Public Health Laboratory for examination.
3. Investigation visits were paid to the home in all cases where the medical practitioner arranged for immediate transfer to hospital, to ascertain the possible cause of infection, and to swab any contacts if thought advisable.
4. In cases occurring in hospital practice, letters were sent, asking for a report of bacteriological findings.
5. A report of the bacteriological findings was asked for from all cases transferred to Monsall Hospital.

Midwives Cases.

In every case where a raised temperature was reported by a midwife, swabs from her nose and throat were sent for examination, and also swabs from the nose and throat of any other midwife who had been in attendance, if thought advisable.

34 cases were reported and 40 midwives were swabbed.

In only one instance was the hæmolytic streptococcus isolated. The midwife was suspended from duty until negative swabs were obtained.

Of the 34 cases of raised temperature reported, 10 were notified as puerperal pyrexia.

1 was removed immediately to Monsall Hospital ;

6 were partly nursed by the special nurses and later removed to hospital, and of these 1 had hæmolytic streptococci isolated from the cervix.

3 had non-hæmolytic streptococci isolated from the cervix.

Of all the cases removed to Monsall, in 9 only were hæmolytic streptococci isolated. They were as follows :—

Hæmolytic streptococci from throat only	5
„ „ from cervix only	3
„ „ from cervix and throat .. .	1

After-care of Cases of Puerperal Pyrexia.

46 women who have suffered from puerperal pyrexia were visited. 33 were in good health ; 2 were under medical care awaiting operation treatment for prolapse ; 3 were pregnant and were referred to the Health Visitor for follow-up visits ; 8 had removed from the district.

Still-birth and Neo-natal Death in Midwives' Practice.

The following table gives the total number of still-births notified in the City during the year :—

TABLE X.

Number Still-births Notified	Number in Practice of			Per cent. of Notified Births	
	Midwives, including cases in which a Doctor is called in under C.M.B. Rules	Doctors, including cases with Midwife acting as maternity nurse	Hospitals and Nursing Homes	1937	1938
665	95 = 2.50% of cases taken	58 = 7.54% of cases taken	*512 = 6.57% of cases taken	5.77	5.05

* 155 of these cases were mothers whose home address was outside the City.

Still-births in the Practices of Midwives.

During the year there was a slight decrease in the number of stillbirths in the practices of midwives—95, against 102 in 1937.

Of the stillbirths occurring in midwives' practices, 14·73 per cent. were of primiparæ as against 17·6 per cent. in 1937 and 23·3 per cent. in 1936.

Poor health of the mother was given as a possible cause in 10·5 per cent. of the stillbirths occurring in midwives' practices.

Analysis of Possible Causes of Still-births.

	Fœtus fresh			Fœtus macerated		
	Full term	Pre-mature	No. of Primiparæ	Full term	Pre-mature	No. of Primiparæ
1. Illness of Mother—						
Influenza .. .. .	..	..	..	1	2	1
Probable specific disease .. ..	..	..	..	..	..	..
Albuminuria .. .. .	..	1	1	1	3	1
Probable toxæmia .. .. .	..	..	..	..	1	..
Poor health	3	4	..	3	..	..
Falls	1	2	1	..	3	..
2. Ante-partum hæmorrhage	4	..	..	..	3	..
3. Hydramnios .. .. .	..	..	..	..	..	..
4. Accidents of labour—						
Instrumental delivery	1	..	1	..	..	..
Breech delivery	3	..	..	..	..	..
Long or difficult labour	7	1	1	..	..	..
Twin birth	1	..	..	..	1	..
Abnormal cords	3	..	..	..	..	..
5. Congenital malformations	10	2	2	1	5	1
6. Shock	2	..	..	..	3	..
7. No sufficient reason	10	2	2	6	3	3
8. No information	2	..	..	..	..	..
9. Want of attention at birth .. ..	..	..	..	..	..	..
10. Post maturity .. .. .	..	..	..	..	..	..
11. Multiparity .. .. .	..	..	..	..	..	..
	47	12	8	12	24	6

Neo-natal Deaths in Midwives' Practice.

There were 60 deaths, 3 occurred before a medical practitioner could be obtained. In 1 case the doctor gave the certificate and in 2 cases inquests were held. The verdicts were :—

Want of attention at birth (B.B.A.)	..	..	..	..	1
Convulsions	..	..	..	..	1

TABLE XI.**Pemphigus Neonatorum.**

Pemphigoid skin rashes reported	Notified Cases	Not Notified	Total Deaths	Death per cent. of all reported cases
79	48 (1 died)	31	1	1.26

Incidence of fatal cases per registered live birth :—

1931	..	..	0.57	per 1,000.
1932	..	..	0.25	„ „
1933	..	..	0.16	„ „
1934	..	..	0.17	„ „
1935	..	..	0.50	„ „
1936	..	..	0.08	„ „
1937	..	..	0.46	„ „
1938	..	..	0.007	„ „

TABLE XII.**Age at Onset.**

	Under 2 weeks	2-3 weeks	3-4 weeks	Over 4 weeks
Notified cases ..	37	6	3	2
Not notified ..	17	11	1	2

TABLE XIII.

Pemphigoid Rashes in Domiciliary and Hospital Practice.

	Midwives		Doctors		Hospitals and Registered Maternity Homes		Hospital Districts	
	Attack	Death	Attack	Death	Attack	Death	Attack	Death
Notified cases ..	13	1	1	..	24	..	10	1
Not notified ..	16	..	3	..	11	..	1	..

Of the 79 cases of pemphigus and pemphigoid rashes, 59 were nursed by the special nurses. 42 were of a mild type and the skin condition became normal in from 2 to 3 weeks. In 2 of these a slight condition of conjunctivitis was present.

Of the more serious cases, 12 recovered in 3 to 4 weeks, 3 in 5 weeks, 2 in 6 weeks and over, 1 case died—certified cause pemphigus neonatorum.

During the year there were 3 small outbreaks of pemphigus; 2 were in institutions and 1 in a midwife's practice. One institution had a small outbreak of 10 cases; 9 of these were notified in one week. The other institution had an outbreak of 7 cases, 5 of which were notified in one week. The midwife had 5 cases, 3 of which were notified.

In none of these outbreaks were there any serious cases and all made a good recovery.

Summary of Investigations (other than nursing visits) made by the
Inspectors of Midwives and Special Maternity Nurses.

	Number of visits.
Maternal deaths	63
Puerperal pyrexia	211
After-care in cases of puerperal fever and puerperal pyrexia	44
Newly-born infant	1
Investigation into certified cases of pemphigus neonatorum	18
Medical records	2
	339
 Total number of visits made by the staff :—	
Inspectors of Midwives	450
Domiciliary Nursing (including ophthalmic nursing) ..	13,683
Investigations	339
	14,472

OPHTHALMIC SECTION.

The work of the ophthalmic section is carried out by 3 fully-trained nurses with special ophthalmic training, under the supervision of the Inspector of Midwives. They visit and treat, under medical supervision, all cases of eye disease from birth to school age, when those who still have eye defects are transferred to the School Medical Officer.

Cases are referred by—

1. Midwives, under the rules of the Central Midwives' Board.
2. Medical Practitioners and hospitals, under the Ophthalmia Neonatorum Notification Order.
3. Medical officers at the Child Welfare Clinics.
4. Health visitors.

During the year 1938, 849 new cases were visited. Of these, 423 were cases of eye disease in older children and 426 cases of ophthalmia neonatorum. The total number of visits paid was 7,754.

Ophthalmia Neonatorum.

133 cases were notified by private practitioners or by the Royal Eye Hospital as cases of ophthalmia neonatorum. A further 293 cases were reported by midwives who had advised medical aid for unsatisfactory eye conditions not subsequently notified as ophthalmia neonatorum. Of these, 69 related to infants discharged from hospital (with their mothers) on or after the 10th day.

TABLE A.—1938 Ophthalmia Neonatorum and Conjunctivitis. History of Mother.

	Age of Mother					Parity										Labour		Attendant not present at birth	No. of mothers having had previous cases of Ophth. Neon.	History of yellow discharge	Legitimacy		
	Under 20	20—25—	30—	35 and Over	Total	1	2	3	4	5	6	7	8	9+	Not ascertained	Normal	Abnormal				Legit.	Illegit.	
																							8
Notified Cases	8	39	36	32	17	1	48	38	19	13	6	4	3	1	1	—	125	8	7	4	9	118	15
Not Notified (Midwives' cases)	10	72	77	77	46	11	88	74	59	26	16	5	3	6	6	10	284	9	7	9	285	8	
Corneal Cases	2	4	—	—	—	—	6	—	—	—	—	—	—	—	—	—	6	—	1	—	3	3	3

Total cases notified 133
 Total cases not notified 293
426

Swabs were taken from the conjunctiva in all cases where possible, and sent to the Public Health Laboratory to be examined bacteriologically for the presence of gonococcus. 36 swabs were examined, and of these 8 gave a positive result. The mothers were advised to seek medical advice either from their own doctor or from a venereal disease clinic.

When swabs have been taken, "Follow up" visits are paid at the end of 6 months. During the year 19 visits have been paid. 2 who had discharge reported it had cleared, 2 had had treatment for their general health. The others were all in good health and stated they had no discharge. 1 reported a further pregnancy.

Corneal Cases.

During the year there were 6 cases with involvement of the cornea, an increase of 2 on last year.

TABLE C.—Results of the Cases of Ophthalmia Neonatorum and
Conjunctivitis in Newly-born Infants.

	Complete recovery	One Eye blind, other normal	One Eye blind, the other damaged	Both Eyes lost	Both Eyes damaged	One Eye damaged	Death before recovery	Removed before recovery
Ophthalmia	111	..	..	..	..	* 1	2	3
Neonatorum								
Conjunctivitis	256	..	..	..	..	..	2	8

Of the notified cases 67 cleared under one month and 30 cleared under two months.

17 cases of ophthalmia neonatorum and 27 cases of conjunctivitis were carried over to 1939.

* Included in the 17 cases of ophthalmia neonatorum carried over to 1939.

TABLE D.—Total Number of Cases of Ophthalmia and Conjunctivitis in Newly-born Infants and the Percentage with Corneal Complications, 1911-1938.

Year	No. of Cases	Percentage with Corneal complications
1911	525	7.23
1912	667	11.39
1913	573	12.04
1914	681	9.25
1915	642	7.79
1916	620	6.13
1917	539	6.86
1918	567	8.64
1919	698	4.73
1920	974	4.83
*1921	921	2.28
1922	604	2.30
†1923	569	1.70
1924	572	2.00
1925	533	1.30
1926	478	2.70
1927	444	2.70
1928	375	1.00
1929	334	1.70
1930	321	1.80
1931	255	1.10
1932	225	1.80
1933	250	1.60
1934	273	.36
1935	297	.33
1936	305	.65
1937	315	1.27
1938	426	1.40

* 1 per cent. silver nitrate supplied to midwives from July, 1921.

† 7 per cent. Argylol supplied to midwives to replace silver nitrate from March, 1923.

Eye Diseases in Older Children.

In addition to the cases of ophthalmia neonatorum and conjunctivitis in newly-born infants, the ophthalmic nurses visit and treat, under medical supervision, all cases of eye disease in children brought to their notice, until they have recovered, or, in cases of corneal and congenital defects, keep them under observation until they have reached school age, when they are referred to the School Medical Officer with a report on their condition. 3 children were so referred during the year.

During 1938, the staff has visited 423 new cases, and 99 cases carried over from 1937; a total of 522 cases.

	Old Cases Brought forward	New Cases	Carried over
Simple Conjunctivitis	29	247	30
Purulent Conjunctivitis	1	30	6
Lacrymal Obstruction	12	84	5
Dacryocystitis	1	3	2
Blepharitis	4	21	9
Corneal Ulcers	5	6	5
Nebulæ cornea	16	8	18
Coloboma	2	1	3
Cataract Congenital	6	2	8
" " (traumatic)	2	1	2
Glioma	1	3	3
Defective Vision	4	2	5
Microphthalmus (one eye)	1	1	1
Iritis	1	—	1
Rinitis	—	—	—
Staphyloma	1	—	—
Nystagmus	3	—	2
Corneal scar (traumatic)	—	1	1
Keratitis	—	1	—
Anophthalmos { congenital	2	—	1
{ following accident	3	—	3
Hordeolum	1	5	—
Phlyctenula	1	5	1
Albino	1	—	1
Prophosis	—	—	—
Leucoma	1	—	1
Blind through perforation { both eyes	1	1	1
of globe { one eye	1	—	1
Buphthalmos	1	1	2
	99	423	108

108 cases have been carried over into 1939.

There is a slight increase in the cases of blepharitis and corneal opacity.

The following table gives the figures for the last ten years :—

Year	Blepharitis	Corneal Opacity (found as Ulcer or Nebulæ)
1929	18	22 .
1930	9	16
1931	8	15
1932	6	18
1933	5	19
1934	7	8
1935	12	15
1936	11	13
1937	14	15
1938	21	17

All of the 17 cases in which the cornea was affected are making satisfactory progress. Some have cleared, others are clearing, and in none will there be any permanent damage to the sight.

One case of blindness of both eyes in a girl of 2 years was referred to the department. A cup of tea was spilled over her face and, in spite of treatment, both eyes were lost (she was not resident in Manchester at the time).

Sunshine Home for Blind Babies.

During the year two children were maintained in the Sunshine Home for Blind Babies, Southport; one suffering from blindness following measles and one suffering from glioma.

The care of the child suffering from glioma was transferred to the Education Department in December as he had attained the age of five years.

CHILD WELFARE CENTRES.

On October 24th the Sharston Centre was opened, and at the end of 1938 there were 22 municipal infant welfare centres and one voluntary centre in the Holy Name schoolroom to which the City supplies the medical officer and the stationery. This centre is otherwise staffed by the Sisters of Charity of the Order of St. Vincent de Paul.

There are at the various centres 114 weekly medical consultations, comprising 82 infant sessions, 3 special birthday sessions, 6 sunlight, 25 ante-natal, and 5 toddlers' sessions, at which an attempt is made to secure only the attendance of children between 2 and 5 years of age.

At the end of the year there were on the centre register :—

- 5,688 children under 1 year.
- 4,292 children between 1 and 2 years.
- 6,479 children between 2 and 5 years.

71·88 per cent. of all Manchester children under 1 year attended at least once.

The tables show the work done at the Child Welfare Centres during the year 1938.

259,644 attendances were made at these sessions :—

113,647	by children under 1 year.
59,133	„ between 1 and 2 years.
37,277	„ „ 2 and 3 „
21,482	„ „ 3 and 4 „
11,105	„ „ 4 and 5 „

Toddlers' Sessions.

A weekly examination session is set apart for children between 2 and 5 years of age at Newton Heath, Ancoats, and Openshaw Centres. To the parents in these wards, as their children reach 2 and 3 years of age, a card of invitation is delivered personally by the health visitor, who emphasises the need for continued medical supervision and urges them—if they are unable to obtain it otherwise—to bring their children for examination.

During 1938, 1,478 invitations were sent to 2 year olds, of whom 285 were brought for examination ; and 1,329 were sent to 3 year olds, of whom 229 were brought for examination.

Massage and Remedial Exercises.

This work is performed by a staff of 9 full-time masseuses and, in addition, part-time masseuses for 11 sessions weekly.

Massage treatment is provided at 20 centres, where 51 sessions were held each week. At 8 centres a weekly class of remedial exercises is held for children from 2 to 5 years, for whom exercises are considered better than massage. The ailments treated are postural defects, rickety deformities, general or local poor muscular tone, and some of the milder birth injuries.

There were 26,395 attendances for massage and 5,848 for remedial exercises.

Artificial Sunlight.

1,454 patients were treated with ultra-violet light during 1938, 78 of these being adults and 1,376 children.

26,091 treatments were given.

Rickets, general debility, and catarrhal conditions formed the largest proportion of those treated, and the results in these cases were almost uniformly good. Other diseases treated were adenitis, asthma, and nervous manifestations.

The number of children who came for treatment for catarrhal conditions, bronchitis, persistent cough after whooping cough, and pneumonia was much larger than usual. In the opinion of the doctors who recommended this treatment, the results were remarkably good. Most of these children had been taking cod liver oil for some weeks without the desired effect.

After the epidemics in the winter of 1938 the tonic results of a short course of treatment were very evident.

121 children under one year were given a prophylactic dose of ultra-violet light. The usual period of treatment was one month. Nearly 80 per cent. of those who were sent for re-examination after being discharged kept the appointments.

78 expectant and nursing mothers were also treated, but 50 per cent. of these ceased attending before the completion of the course.

Dental Clinics.

A session for dental treatment of nursing and expectant mothers and one for children has been held weekly at Rosamond Street and Cheetham Centres. Patients are referred from the welfare centres.

A general routine inspection for children has not yet been arranged. Children with suspected or beginning dental caries are referred from the welfare centres to the dental clinic, where preliminary dental treatment is given. The parents then receive regular three or six-monthly invitations to bring them for further inspection and treatment until they reach the age of 5 years. The welfare centres are notified when these appointments are not kept.

At the beginning of the year there were 429 children under 5 in attendance at the dental clinics. 1,019 new cases were referred for treatment from the welfare centres. 262 failed to attend. 757 new children attended for treatment. 458 were marked off on reaching 5 years of age and 271 because they ceased to attend. 500 names remained on the register at the end of the year. 1,861 attendances were made.

The response to the offer of dental treatment varies in different centres :—

Centre	Number referred	Number failed to attend	Number attended
Abbey Hey	24	4	20
Ardwick	90	43	47
Ancoats	31	10	21
Blackley	39	9	30
Clayton	43	16	27
Collyhurst	53	13	40
Chorlton-cum-Hardy	27	2	25
Cheetham	54	11	43
Chorlton-upon-Medlock	94	16	78
Didsbury	12	1	11
Miles Platting	21	9	12
Gorton	39	6	33
Hulme	17	6	11
Harpurhey	36	7	29
Holy Name	4	3	1
Levenshulme	40	8	32
Northenden	99	30	69
Newton Heath	93	12	81
Openshaw	33	6	27
Rusholme	88	35	53
Sharston	2	1	1
Wilbraham	23	2	21
Withington	57	12	45
	1,019	262	757

During 1938, 673 mothers made 1,588 attendances. 345 others failed to keep any appointment and received no treatment. The condition of the mouths is such that usually only extractions can be done.

Systematic talks on the influence of diet on dental structure and the prevention of caries are given at all the centres and at the dental clinics.

Cookery demonstrations.

It is recognised that one of the causes of ill-health of young children—as well as of the rest of the family—is an unsuitable diet, and cookery demonstrations were provided at 10 of the infant welfare centres, where mothers were taught the value of food, and its preparation, while their young children are “minded” on the premises.

At the Northenden Centre there are two cookery sessions a week. This centre is fortunate in having two kitchens. In one there is a Triplex grate and a gas stove, and in the other an electric cooker. At one session a week the ordinary demonstration is given; at the other, the mothers do the cooking in the presence of the demonstrator. This class is much appreciated.

Voluntary Workers.

During the year 329 voluntary workers gave valuable assistance at the child welfare centres. The total number of attendances of these workers for the year was 11,925, an average of 2.95 workers per session.

The department is greatly indebted to the voluntary workers supplied by the Schools for Mothers for the cordial co-operation they give in the work of the centres by entering the new babies, registering the attendances, and charting the heights and weights of the children.

At Rosamond Street the Schools for Mothers held 33 sewing classes during the winter, and 304 attendances were made.

In 1936, the Schools for Mothers opened a holiday home at Oakleigh, Marple, for mothers with their babies. In 1938 it had a very successful year, and 106 mothers and 173 children had a holiday there of one or two weeks' duration. The home was full during the summer months and had some visitors during the rest of the year.

The charges are 17s. 6d. a week for the mothers, 2s. 6d. for children under 2 years of age, and 5s. for older ones up to 5 years of age. A charge of 1/- is made for a baby who is breastfed or for whom dried milk is brought.

The Schools for Mothers is to be congratulated on the success of this piece of pioneer work.

It is difficult to give an adequate conception of the great amount of devoted work carried out by the Schools for Mothers, but we gratefully acknowledge the very large and important contribution made by this Society to the work of maternity and child welfare in the City.

Ante-natal Clinics.

There are now ante-natal clinics established at 16 centres, where 25 sessions are held weekly. Bi-weekly sessions are held at Openshaw, Collyhurst, Harpurhey, Withington, Rusholme, and West Gorton; at Hulme and Higher Ardwick they are combined with V.D. treatment for mothers and children. 4,736 new mothers were admitted and 21,049 attendances were made. Ardwick now has three sessions.

In addition to the ante-natal sessions provided at the infant welfare centres, there are municipal ante-natal clinics established at Crumpsall and Withington Hospitals (see pages 173 and 210).

Post-natal Clinics.

The after-effects of child-birth continue to give rise to concern and every attempt was made to secure the attendance of mothers for a post-natal examination at one of the 16 ante-natal centres. 418 presented themselves for complete examination at four to six weeks after confinement. The results were as follows:—

Results of Post-Natal Examinations.

1.	Total number of cases examined	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	418
2.	„ „ recovered	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	181
3.	„ „ not recovered	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	207
4.	„ „ not fully examined	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	30
5.	Number of defects found	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	476
6.	General post-natal conditions:—									
	(A) Satisfactory	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	281
	(B) Unsatisfactory	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	137
	(i.) Due to labour—									
	(a) Backache	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	34
	(b) Anæmia	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	46
	(c) Any other condition	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	47
	(ii.) Due to old-standing disease	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	9

7. Local pelvic conditions :—

(A) Satisfactory	218
(B) Unsatisfactory.. .. .	167
(C) Not examined	33
(i.) Prolapse	6
(ii.) Retroversion	71
(iii.) Subinvolution	53
(iv.) Cervical tears	55
(v.) Rectocele	21
(vi.) Cystocele	32
(vii.) Leucorrhœa.. .. .	30
(viii.) Perineal tears	40
(ix.) Any other condition	10

8. Evidence of renal disease :—

(A) A.N. albuminuria	22
(i.) Recovered	18
(ii.) Not recovered	4
(iii.) Not examined	—
(B) Albuminuria P.N. only.. .. .	2
(C) A.N. Hyperpiesis	16
(i.) Recovered	11
(ii.) Not recovered	4
(iii.) Not examined	1
(D) Hyperpiesis P.N. only	2

Ante- and Post-natal Exercises.

Exercises for mothers during the ante- and post-natal periods are held at four of the infant welfare centres. At Rusholme and Northenden the exercises are given by a part-time masseuse in the employ of the department. At Levenshulme, by an arrangement with Ancoats Hospital, members of the staff of the Physio-therapy Department have continued to conduct these classes. The attendances were—at Rusholme 286, at Northenden 251, at Levenshulme 205, and at Withington 351.

The purpose of this treatment is to restore the mother to a satisfactory state after her pregnancy and confinement.

The mothers come about a month after the confinement, and graduated exercises and massage are begun. After a few weeks the mother can do quite a reasonable course of exercises and her bodily mechanics and general health are improved.

The Superintendent of the Physio-therapy Department reports :—

Levenshulme Clinic.

The work in the clinic has been highly satisfactory.

Number of cases for the year	.. .. .	41
Number of attendances	.. .. .	205

Of these, 28 were ante-natal and 15 post-natal attendances.

The majority of cases were treated for weak musculature of the abdominal wall, with resulting postural strain.

Withington Clinic.

The Keep Fit and Post-natal Classes were taken over by one of the Masseuses on the staff of the M. & C.W. Section in September, 1937.

Lady Mayoress's Shield.

The Lady Mayoress of Manchester in 1933—Mrs. Davidson Peattie—presented a shield for competition amongst the welfare centres, to be held for a year by the centre judged to have done the best work.

The Committee decided to institute an annual series of competitions, covering the whole of the activities of the centres, and to award the shield to the centre that obtained the highest number of marks.

The marks were awarded for attendances at the centres, for breast-feeding, for immunisations, for *viva-voce* examination in mothercraft, for garments (both new and made from old garments), for dinner menus, stews, bread, toys, household gadgets, etc.

In the 1937 year's competitions, Didsbury Centre obtained the highest marks. This centre therefore holds the shield for 1938.

Immunisation against Diphtheria.

At the infant welfare centres immunisation is carried out by the centre doctors, and periodic campaigns are held to stimulate the interest of parents. (See page 38).

Ailing Children.

Hospital Treatment and Follow-up Work.

Twenty beds for children under 1 year and 10 for children between 1 and 2 years are retained at the Manchester Babies' Hospital (see page 310).

350 beds for children under 5 years are provided at the Booth Hall Hospital.

Remedial Day Nurseries.

Two such nurseries are maintained by the Schools for Mothers, one next door to the Openshaw Centre and one (the Spence Nursery) in the grounds of the University Settlement at Ancoats. The nurseries are maintained for children between 18 months and 5 years suffering from rickets, malnutrition, and debilitated conditions. Cases for these nurseries are recommended by the centre doctors. The children are retained until they are well or reach 5 years of age.

The Corporation retains 5 beds at each of the nurseries.

Openshaw Day Nursery.

Total number of places for children under 5 years ..	13
„ „ whole day attendances	2,379
„ „ individual children who attended ..	18
Number of individual children admitted as Corporation cases	12

(The period of stay varied from 10 weeks to 46 weeks.)

Spence Day Nursery.

Total number of places for children under 5 years ..	22
„ „ whole day attendances	3,782
„ „ individual children who attended ..	34
Number of individual children admitted as Corporation cases	19

(The period of stay varied from 8 days to 12 months.)

Ante-Natal Cases at Centres and Results in Delivery.

CENTRE	No. on Register Jan. 1st, 1938	No. of New Cases	Transferred from another Centre	TOTAL	No. still on Register Jan. 1st, 1939	No. of Term Births	Still-births included in Term Births	No. of Premature Births	Still-births included in Premature Births	No. of Mothers left District before Confinement	Transferred to another Centre	No. of Mothers not Pregnant	TOTALS
Ancoats	39	273	1	313	66	219	8	20	12	4	1	3	313
Ardwick	78	317	3	398	53	292	5	27	6	8	3	15	398
Chorlton-upon-Medlock ..	68	342	2	412	88	259	1	28	13	11	3	23	412
Collyhurst	73	356	1	430	83	306	12	20	5	5	10	5	429+1*
Cheetham	109	300	—	409	74	282	9	10	9	33	2	8	409
Clayton	47	260	1	308	65	201	3	23	5	8	—	11	308
Gorton	118	458	2	578	121	371	18	34	13	26	2	22	576+2*
Harpurhey	88	271	2	361	73	233	6	13	6	15	3	24	361
Hulme	25	106	1	132	27	92	—	2	1	4	—	7	132
Levenshulme	53	237	—	290	68	177	7	24	3	11	1	9	290
Newton Heath	81	312	7	400	87	266	7	14	4	13	4	16	400
Openshaw	120	491	—	611	114	412	9	57	18	5	3	20	611
Rusholme	67	290	4	361	66	232	3	13	3	29	4	17	361
Withington	81	262	1	344	77	233	5	12	3	13	—	9	344
Northenden	66	276	5	347	74	227	3	19	3	8	4	14	346+1*
Blackley	38	186	10	234	55	163	8	4	—	8	—	4	234
	1,151	4,736	40	5,928	1,191	3,965	104	320	101	201	40	207	5,924+4*

* Death before delivery. One only registered as death due to pregnancy.

**Ante-Natal Cases at Centres and Number attending for
Post-Natal Examination.**

Centre	No. of Normal Births	No. of Abnormal Births	Died	Attended for Post-natal Examination
Ancoats	212	27	2	9
Ardwick	267	52	—	36
Blackley	155	12	—	30
Chorlton-upon-Medlock .	239	48	1	13
Collyhurst	287	39	1	17
Cheetham	255	37	—	6
Clayton	201	23	—	7
Gorton	343	62	1	19
Harpurhey	217	29	—	65
Hulme	80	14	—	3
Levenshulme	159	42	1	31
Newton Heath	238	42	2 + 1*	34
Northenden	203	43	1	44
Openshaw	365	104	2	19
Rusholme	212	33	1	39
Withington	209	36	1	46
Totals	3,642	643	12 + 1*	418

* Died out of the district.

*Causes of Deaths of Mothers attending the Centre Ante-Natal Clinics
during the Year, 1938.*

Accidental hæmorrhage	1
Obstetric shock	2
Ante-partum hæmorrhage	1
Cardiac failure	2
Pre-eclamptic toxæmia of pregnancy	1
Septicæmia puerperal sepsis	2
Pulmonary embolism	1
Bilateral suppurative parotitis	1
Broncho-pneumonia (Cæsarean section)	1
Shock accelerated by a spinal anæsthetic (Cæsarean section)	1

Comparison of Children in Age Groups attending the Welfare Centres, December 31st, 1938.

Centre	On Register at beginning of 1938			New Cases			Died	Marked off—Not attending			On Register, January 1st, 1939		
	0—1	1—2	2—5	0—1	1—2	2—5		0—1	1—2	2—5	0—1	1—2	2—5
Abbey Hey	166	131	191	269	54	93	6	57	85	127	190	158	24
Ancoats	261	196	287	386	100	166	23	106	186	240	264	191	30
Ardwick	379	278	366	578	130	227	40	155	267	365	390	247	36
Blackley	265	191	280	391	84	177	1	97	177	245	275	233	30
Chorlton-upon-Medlock .	434	348	500	644	159	311	37	169	290	485	435	351	48
Cheetham.. .. .	274	220	330	413	74	143	12	134	225	344	260	170	24
Clayton	216	133	193	279	60	95	13	95	110	205	191	134	17
Collyhurst	246	186	218	427	103	172	22	118	120	229	276	224	28
Chorlton-cum-Hardy ..	163	155	229	195	49	114	2	36	93	187	128	169	21
Didsbury	97	108	149	149	26	52	1	14	51	97	122	90	15
Gorton	354	268	347	535	92	214	20	162	243	405	341	237	31
Harpurhey	293	228	341	417	85	140	14	115	228	307	267	193	27
Holy Name	25	25	61	46	7	21	1	8	14	40	31	27	4
Hulme	187	156	164	335	82	110	20	99	162	207	219	130	16
Levenshulme	337	227	410	463	66	145	11	111	169	299	301	250	35
Miles Platting.. .. .	131	119	130	209	61	113	10	56	123	158	142	76	14
Newton Heath	307	287	492	474	104	298	6	130	190	459	344	237	47
Northenden	444	339	621	610	159	378	15	137	282	589	337	320	54
Openshaw	340	270	382	558	106	208	36	182	207	419	353	241	33
Rusholme.. .. .	325	267	363	537	137	220	9	143	231	388	360	224	37
Sharston .. .. .	..	..	..	152	102	152	..	..	..	..	148	102	15
Wilbraham	72	57	85	92	14	60	2	21	36	85	60	51	8
Withington	299	258	483	392	63	183	11	83	131	340	254	237	43
Totals	5,615	4,447	6,622	8,551	1,917	3,792	312	2,228	3,620	6,220	5,688	4,292	6,47

COMPARATIVE TABLES FOR PREVIOUS TWO YEARS:—

1937	5,252	3,957	5,769	7,856	1,553	2,970	323	1,114	2,829	4,502	5,615	4,447	6,6
1936	5,213	3,963	5,789	7,400	1,425	2,911	337	1,349	3,448	5,637	5,252	3,957	5,76

**Comparison of Registered Births and Babies under 1 Year
attending the Centres during 1938.**

Ward	Births	New Cases (at Centres) under 1 Year	Percentage
All Saints	312	244	78·2
Ardwick	422	277	65·6
Beswick	408	237	58·0
Blackley	294	163	55·4
Bradford	416	364	87·5
Cheetham	267	239	89·5
Chorlton-cum-Hardy	352	233	66·2
Collegiate Church	232	141	60·7
Collyhurst	265	187	70·6
Crumpsall	364	231	63·5
Didsbury	331	209	63·1
Exchange	1	—	—
Gorton North	305	269	88·2
" South	383	237	61·9
Harpurhey	345	236	68·4
Levenshulme	218	198	90·8
Longsight	279	157	56·3
Medlock Street	376	295	78·4
Miles Platting	342	277	80·9
Moston	385	264	68·5
Moss Side East	293	243	82·9
" " West	260	197	75·7
New Cross	447	313	70·0
Newton Heath	286	240	83·9
Openshaw	335	226	67·5
Oxford	6	—	—
Rusholme	202	160	79·2
St. Ann's	3	—	—
St. Clement's	23	11	50·5
St. George's	439	309	70·4
St. John's	59	25	42·3
St. Luke's	408	300	73·5
St. Mark's	354	311	87·9
St. Michael's	313	198	63·3
Withington	513	366	71·3
Wythenshawe	787	578	73·4
Totals	11,025	7,925	71·88

Distribution of Milk.

Milk was supplied to necessitous nursing and expectant mothers and to children under 5 years who were attending a centre, and for whom the doctor at the centre certified that milk was necessary on grounds of health.

Both dried and fresh milk were used. The dried milk was bought in bulk from the manufacturers and distributed through the centres. The fresh milk was delivered by the retailers.

The milk was granted to applicants, after investigation, either "free" or "assisted" (half-price), according to income.

MATERNITY BEDS.

In each of the two large general hospitals—Crumpsall and Withington Hospitals—the City maintains a maternity unit. These together provide 230 beds.

In addition to these the Public Health Committee maintains eight maternity beds (2 in St. Mary's Hospital for first and abnormal cases, 2 in Denison House, 2 in Crossley Hospital, and 2 in Beech Mount).

During the year 112 applications were received for these beds. 14 of these were cancelled and 1 was not accepted, as the applicants resided outside the City area. Of the remaining 97, 75 were confined during the year.

HOME HELPS.

The arrangements for the supply of home helps in Manchester are made by the Manchester Home Helps Society.

The Society is subsidised by the Public Health Committee.

During the year 1938, 18 home helps attended 183 cases for a total of 365 weeks, this being an average of 2 weeks per case.

The amount received in fees was £251 7s. 4d.

The helps are remunerated at the rate of 30s. per week, plus travelling expenses and insurance. They receive no retaining fee when unemployed.

Nineteen free home helps were granted by the Public Health Committee. These cases extended over a period of 35½ weeks; eight free home helps were granted by the Home Help Society extending over a period of 11 weeks.

The remainder of the cases dealt with by the Society paid the costs of the home helps to the extent shown in the following table :—

Cases	No. of Weeks Attended	Rate per Week			Amounts Paid by Patients		
		£	s.	d.	£	s.	d.
2	4	0	2	0	0	8	0
6	9	0	2	6	1	2	6
1	2	0	3	0	0	6	0
1	2	0	3	9	0	7	6
2	7	0	4	0	1	8	0
13	31	0	5	0	7	15	0
1	2	0	6	0	0	12	0
7	16	0	7	0	5	12	0
10	21	0	7	6	7	17	6
5	10	0	8	0	4	0	0
1	2	0	8	6	0	17	0
16	33	0	10	0	16	10	0
1	2	0	11	0	1	2	0
7	14	0	12	0	8	8	0
3	7	0	12	6	4	7	6
4	7	0	14	0	4	18	0
17	32	0	15	0	24	0	0
2	4	0	17	0	3	8	0
1	1	0	17	6	0	17	6
4	8	0	18	0	7	4	0
1	3 days	Special			0	19	4
8	14	1	0	0	14	0	0
1	2	1	4	0	2	8	0
3	5	1	5	0	6	5	0
1	3	1	8	0	4	4	0
34	70, 1½ days	1	10	0	105	7	6
4	9, 5 days	1	15	0	17	3	0
156	318½	—			£251	7	4

Applications are made either through the infant welfare centres or direct to the Secretary of the Home Helps Society. All applications are investigated by officers of the Maternity and Child Welfare Section. If not suitable for a free home help, in accordance with the income scale applicable to grants of milk under the Child Welfare Scheme, the information is passed on to the committee of the Society, which assesses payment.

Summary of Work of Investigators for 1938.

No. of visits in connection with milk investigations	New cases ..	28	}	28,
	Reinvestigations	44		
„ milk investigations at centres	New cases ..	5,277	}	28,
	Reinvestigations	22,995		
„ visits <i>re</i> day nursery investigations	New cases ..	7	}	
	Reinvestigations	8		
„ day nursery investigations at centres	New cases ..	17	}	
	Reinvestigations	22		
„ visits <i>re</i> deaf school investigations	New cases ..	3	}	
	Reinvestigations	1		
„ visits <i>re</i> medical fees	New cases ..	2,121	}	2,
„ visits <i>re</i> medical fee accounts not paid	Reinvestigations	491		
„ investigations of medical fees at centres	New cases ..	82	}	
„ investigation visits <i>re</i> home helps		55		
„ investigations at centres <i>re</i> home helps		187	}	
„ investigation visits <i>re</i> municipal maternity beds		20		
„ investigation visits <i>re</i> municipal maternity bed accounts not paid		7	}	
„ investigations at centres <i>re</i> municipal maternity beds		109		
„ investigation visits <i>re</i> midwives' fees		760	}	1,
„ investigation visits <i>re</i> midwives' fees not paid		22		
„ investigations at centres <i>re</i> midwives' fees		284	}	
No. interviewed at office <i>re</i> midwives, 63 ; <i>re</i> milk, 15 ; <i>re</i> medical fees, 7 ; <i>re</i> home help, 1				

Mothercraft Exhibition.

The Maternity and Child Welfare Mothercraft Exhibition is now made up of—

1. A Clothing Exhibition, showing model garments for—

- 1—4 months.
- 4—12 months.
- 1—2 years.
- 2—3 years.
- 3—4 years.
- 4—5 years.
- Belts, etc., for mothers.

2. Model diets for—

- 8—10 months.
- 10—12 months.
- 1—2 years.
- 2—5 years.
- Expectant and nursing mothers.

Diets of three meals for two complete days are given. The necessary amount of foods to give the correct calories and vitamin contents were first worked out. Foodstuffs in these quantities were then cooked. Models in wax and other substances were then made.

The diets have been revised during the year. Explanatory posters and cards accompany the models.

3. A small "household gadgets" section.

4. A "safety first" section, made up of model rooms, showing how accidents occur and how they may be prevented.

This shows—

Living-room dangers.

Bedroom dangers.

Washing-day dangers.

Bathroom dangers.

Garden dangers.

5. How to escape from a house on fire.

This shows two models of houses and the various ways of preventing fires, and how to escape in case of fire. Explanatory leaflets, which are given to the mothers, accompany this section.

6. Home nursing exhibition shows two models of cots containing dolls, used for the purpose of giving demonstrations in home nursing and the care of the patient.

7. Toy exhibition. This shows standard toys suitable for each age of the child under 5 years.

The exhibition was loaned to the Lancashire County Council, for exhibition at Scorton, in February, and was shown at the Centenary Exhibition held in the City Hall in May.

The exhibition has been visited at the Public Health Department by students from the College of Domestic Economy and by international students, also by the Danish delegates in July, 1938, and by several doctors.

CHILD LIFE PROTECTION.

Public Health Act, 1936. Child Life Protection.

Children Nursed for Hire or Reward during the Year 1938.

Number of foster-mothers on register at the beginning of the year	160
Number of foster-mothers on register at the end of the year..	167
Number of children on register at the beginning of the year..	186
" " placed on register during year	245
	431
" " who ceased, during year, to come under the Child Life Protection Provisions of this Act	239
" " remaining on books at the end of the year	192

Details as to the number of children who ceased, during the year, to come under the Child Life Protection Provisions of this Act.

Returned to parent or relative	130
Attained the age of 9 years	14
Sent to special homes	11
Removed to other districts	21
Admitted to hospitals	31
Deaths	2
Transferred to Education Committee (boarded-out child) ..	1
Adopted without payment	28
Taken for trial period with view to adoption	1
	239

Licences Granted.

Licensed for 2 children	5
" " 1 child.. .. .	65
" " 1 child for 6 months	1
" " 1 child for 4 months	1
" " 1 child for 3 months	21
" " 1 child for 2 months	3
" " 1 child for 1 month	1
" " 4 children for 3 months	1
Licences renewed permanently	8

PROVISION OF MILK FREE OR AT REDUCED COST DURING THE YEAR 1938, COMPARED WITH 1937.

Showing Number of Cases receiving Milk, Amount Supplied, Cost, and Mode of Distribution.

			St. George's School, Abbey Hey Lane	135, Pollard St., Ancoats	45, Higher Ardwick	U.M. School, Market Street, Blackley	153, Cheetham Hill Road	Baptist School, Choriton-cum-Hardy	72, Rosamond Street, C.-on-M.	26, Clayton Street, Clayton	113, Collyhurst Street, Collyhurst	Liberal Club Barlow Moor Rd., Didsbury	230, Hyde Road, West Gorton	Jubilee School, Harpurhey	42, Lower Moss Lane, Hulme	St. Peter's School, Levens-hulme	Elm Street School, Miles Platting	686, Oldham Rd. Newton Heath	Beech House, Northenden	1, Manipur St., Openshaw	Welsh Church, Moss Side	Community Hall, Hart Rd., Fallowfield	25, Heaton Road, Withington	Methodist Hall Broadak R.L., Brownsey Green.	Totals
Number of New Cases put on Milk	Fresh Milk	1937..	33	109	182	70	131	20	235	55	173	8	117	74	105	63	24	84	68	174	113	20	43	—	1,901
		1938..	42	82	199	91	247	27	302	119	327	25	145	150	210	53	89	174	105	236	238	34	95	34	3,024
	Dried Milk	1937..	22	270	226	50	152	31	294	90	124	11	111	117	91	97	89	53	146	92	142	10	55	—	2,273
		1938..	70	402	381	124	191	38	487	155	233	17	207	183	164	101	129	86	184	251	231	11	65	17	3,727
Number of Attendances when Milk was supplied	Fresh Milk	1937..	1,099	2,637	4,751	2,009	3,557	1,137	7,276	2,472	4,062	756	4,587	1,835	1,773	2,779	867	3,078	1,611	3,915	3,517	469	2,605	—	56,792
		1938..	1,195	3,089	6,318	2,969	5,731	1,261	10,231	3,121	7,044	859	5,205	3,343	3,140	3,055	1,665	4,769	3,144	4,330	5,321	1,035	3,436	465	80,727
	Dried Milk	1937..	467	7,080	7,263	2,032	3,988	1,274	10,713	2,573	4,123	241	4,064	2,969	2,708	2,582	2,147	1,899	2,604	3,602	3,332	353	1,625	—	67,639
		1938..	1,589	11,545	10,297	3,235	4,382	1,330	14,593	4,286	7,774	196	6,102	3,376	4,253	3,300	3,462	2,894	4,035	4,745	5,332	332	2,306	525	99,889
Amount of Milk supplied (pints or lbs.)	Fresh Milk	1937..	7,918	18,626	34,387	14,495	26,209	8,396	51,876	17,753	28,659	5,389	33,464	13,847	12,415	19,506	6,693	21,842	11,397	28,179	24,643	3,337	19,014	—	408,045
		1938..	8,530	21,924	45,323	20,947	41,059	9,241	72,207	21,991	49,961	6,061	37,240	23,944	22,906	21,643	11,856	33,642	22,997	31,561	38,354	7,436	24,793	3,322	576,938
	Dried Milk	1937..	560	8,176	8,344	2,411	4,696	1,496	12,125	2,974	4,809	319	4,805	3,449	3,255	2,993	2,598	2,367	2,979	4,379	3,740	409	1,873	—	78,757
		1938..	1,885	12,949	11,927	3,714	5,038	1,498	16,574	5,025	9,219	242	6,988	3,914	4,958	3,772	3,850	3,536	4,622	5,630	6,014	403	2,628	589	114,975
Total Cost to Corporation	Fresh Milk	1937..	£ 71 7 4	£ 181 13 3	£ 317 3 4	£ 148 19 7	£ 276 11 5	£ 87 13 6	£ 514 7 4	£ 175 0 0	£ 271 18 6	£ 66 18 5	£ 297 19 8	£ 126 0 3	£ 114 5 1	£ 195 8 2	£ 56 3 6	£ 209 9 3	£ 112 0 0	£ 267 10 1	£ 241 13 4	£ 38 12 2	£ 200 13 4	—	£ 3,971 7 6
		1938..	£ 90 12 2	£ 240 1 11	£ 525 11 6	£ 255 6 6	£ 501 2 6	£ 110 6 2	£ 889 6 4	£ 259 12 1	£ 581 17 1	£ 69 14 3	£ 421 10 8	£ 264 0 3	£ 265 7 6	£ 245 4 7	£ 140 1 7	£ 398 2 4	£ 270 1 9	£ 342 9 9	£ 449 5 2	£ 88 9 3	£ 291 7 2	£ 42 16 11	£ 6,742 7 5
	Dried Milk	1937..	£ 18 8 3	£ 256 4 0	£ 301 14 3	£ 82 18 6	£ 185 15 10	£ 52 2 4	£ 445 15 11	£ 100 9 5	£ 155 3 5	£ 11 13 8	£ 169 17 1	£ 111 1 0	£ 106 5 9	£ 109 11 1	£ 77 16 11	£ 81 3 11	£ 103 6 2	£ 156 4 5	£ 137 19 10	£ 15 10 2	£ 68 18 9	—	£ 2,743 0 8
		1938..	£ 73 16 3	£ 533 11 6	£ 510 14 8	£ 163 6 11	£ 228 11 3	£ 66 11 2	£ 729 8 3	£ 211 5 9	£ 365 0 9	£ 9 9 7	£ 290 8 3	£ 154 17 0	£ 208 5 11	£ 158 4 3	£ 151 18 1	£ 137 15 9	£ 189 12 4	£ 216 18 9	£ 254 8 7	£ 14 16 0	£ 109 13 5	£ 25 19 9	£ 4,804 14 2
Total Cost ..	Fresh and Dried Milk	1937..	£ 89 15 7	£ 437 17 3	£ 618 17 7	£ 231 18 1	£ 462 7 3	£ 139 15 10	£ 960 3 3	£ 275 9 5	£ 427 1 11	£ 78 12 1	£ 467 16 9	£ 237 1 3	£ 220 10 10	£ 304 19 3	£ 129 0 5	£ 290 13 2	£ 215 6 2	£ 423 14 6	£ 379 13 2	£ 54 2 4	£ 269 12 1	—	£ 6,714 8 2
		1938..	£ 164 8 5	£ 773 13 5	£ 1,036 6 2	£ 418 13 5	£ 729 13 9	£ 176 17 4	£ 1,618 14 7	£ 470 17 10	£ 946 17 10	£ 79 3 10	£ 711 18 11	£ 418 17 3	£ 473 13 5	£ 403 8 10	£ 291 19 8	£ 535 18 1	£ 459 14 1	£ 559 8 6	£ 703 13 9	£ 103 5 3	£ 401 0 7	£ 68 16 8	£ 11,547 1 7

Statement of Work Done at the Child Welfare Centres during the Year 1938.

	Year	Abbey Hey	Ancoats	Ardwick	Blackley	Cheetham	Chorlton-cum-Hardy	Clayton	Chorlton-upon-Medlock	Collyhurst	Didsbury	West Gorton	Harpurhey	Holy Name	Hulme	Levenshulme	Elm Street	Newton Heath	Northenden	Openshaw	Rusholme	Sharston	Wilbraham	Withington	Totals	
Consultations	1938	A 3,329	B 4,317	6,260	3,393	3,557	3,090	D 3,167	7,335	4,377	2,015	5,183	4,850	632	2,694	4,889	1,821	5,466	5,812	6,085	5,795	F 386	1,024	5,378	90,855	
	1937	2,815	4,208	5,751	3,221	3,746	2,706	2,864	7,628	3,388	1,974	5,107	4,991	765	2,372	4,393	1,658	5,010	5,225	5,456	5,296	..	1,109	5,652	85,335	
Babies weighed only ..	1938	5,808	8,307	11,242	8,503	5,669	6,493	4,641	14,683	9,137	4,294	9,877	7,752	834	5,370	9,699	3,301	9,116	12,184	7,390	10,232	845	1,885	11,527	168,789	
	1937	4,197	4,967	9,418	6,718	5,519	5,850	3,876	12,374	5,757	3,543	8,628	6,624	947	4,471	9,285	2,756	8,823	11,110	6,448	9,235	..	1,868	11,230	143,644	
Total attendances	1938	9,137	12,624	17,502	11,896	9,226	9,583	7,808	22,018	13,514	6,309	15,060	12,602	1,466	8,064	14,588	5,122	14,582	17,996	3,475	16,027	1,231	2,909	16,905	259,644	
	1937	7,012	9,175	15,169	9,939	9,265	8,556	6,740	20,002	9,145	5,517	13,735	11,615	1,712	6,843	13,678	4,414	13,833	16,335	1,904	14,531	..	2,977	16,882	228,979	
Individuals who attended Centres	1938	831	1,147	1,649	1,212	1,228	751	804	1,883	1,121	498	1,515	1,239	149	877	1,422	609	1,647	2,011	1,503	1,553	401	315	1,336	25,701	
	1937	575	936	1,284	898	1,019	648	654	1,592	779	417	1,207	1,043	145	677	1,161	461	1,297	1,688	1,205	1,188	..	274	1,185	20,333	
Number of attendances for Massage	1938	899	1,177	1,709	1,134	1,434	1,066	720	1,107	1,846	508	1,727	1,670	..	1,031	1,230	860	1,980	1,772	1,969	1,109	..	..	1,447	26,395
	1937	985	1,027	1,719	1,001	1,401	991	685	1,400	1,813	G 9	1,929	1,607	..	1,035	1,268	817	2,071	1,603	1,878	1,265	..	..	1,435	25,939
Number of Attendances for Remedial Exercises ..	1938	639 Children .. Mothers	..	..	..	288 Children .. Mothers	323 Children .. Mothers	456 Children .. Mothers	583 Children .. Mothers	..	..	..	..	..	.. Children 16 Mothers	929 Children 205 Mothers	..	..	813 Children 286 Mothers	..	1,007 Children 286 Mothers	..	..	810 Children 351 Mothers	5,849 Children 1,109 Mothers
	1937	567 Children .. Mothers	363 Children .. Mothers	391 Children .. Mothers	373 Children .. Mothers	534 Children .. Mothers Children .. Mothers	760 Children 284 Mothers	1,040 Children 402 Mothers	..	687 Children 258 Mothers	752 Children 368 Mothers	5,467 Children 1,312 Mothers
Number of Attendances for Sunlight	1938 . . . . .	..	..	8,741	..	4,167	..	..	8,705	..	..	..	..	..	..	..	..	4,478	..	..	..	..	..	..	26,091
	1937 . . . . .	..	..	9,043	..	4,770	..	..	8,390	..	..	..	..	..	..	..	..	4,149	..	..	..	..	..	..	26,352
Number of Attendances at Cookery Classes	1938 . . . . .	..	395	235	..	..	..	301	331	..	..	144	..	..	200	..	..	602	701	330	..	..	..	266	3,505
	1937 . . . . .	..	486	391	..	..	..	279	477	..	..	264	..	..	273	..	..	605	782	299	..	..	..	307	4,163
Number of Attendances at Ante-natal Clinics	1938 . . . . .	..	1,123 A.N. 15 P.N.	C 1,475 A.N. 69 P.N.	860 A.N. 35 P.N.	1,219 A.N. 16 P.N.	..	1,029 A.N. 13 P.N.	1,195 A.N. 22 P.N.	E 1,525 A.N. 19 P.N.	..	1,924 A.N. 52 P.N.	1,272 A.N. 130 P.N.	..	630 A.N. 15 P.N.	1,158 A.N. 31 P.N.	..	1,412 A.N. 47 P.N.	1,244 A.N. 94 P.N.	1,975 A.N. 21 P.N.	1,542 A.N. 64 P.N.	..	..	1,466 A.N. 37 P.N.	21,049 A.N. 680 P.N.
	1937 . . . . .	..	851 A.N. 20 P.N.	1,049 A.N. 33 P.N.	H 178 A.N. 12 P.N.	794 A.N. 36 P.N.	..	841 A.N. 11 P.N.	1,057 A.N. 92 P.N.	1,109 A.N. 6 P.N.	..	1,488 A.N. 71 P.N.	1,311 A.N. 66 P.N.	..	409 A.N. 12 P.N.	1,128 A.N. 16 P.N.	..	1,023 A.N. 49 P.N.	901 A.N. 85 P.N.	1,654 A.N. 37 P.N.	1,184 A.N. 86 P.N.	..	..	1,319 A.N. 50 P.N.	16,296 A.N. 682 P.N.
Number of Attendances at V.D. Clinics	1938	C 1,614	837	2,451
	1937	1,061	870	1,931
Number of Attendances at Dental Clinics	1938	609 Mothers 833 Children	979 Mothers 1,028 Children	1,588 Mothers 1,861 Children
	1937	379 Mothers 670 Children	805 Mothers 944 Children	1,164 Mothers 1,614 Children

A—A new infant session began Sept. 2nd, 1938. **B**—A new infant session began Nov. 9th, 1938. **C**—A new joint A.N. and V.D. session began Oct. 17th, 1938. **D**—A new infant session began Oct. 17th, 1938. **E**—An extra A.N. session began Dec. 5th, 1938. **G**—A massage session began Dec. 7th, 1937. **H**—A new ante-natal session began Aug. 24th, 1937. **F**—A new centre was opened at Methodist School Hall, Broadoak Road, Brownley Green (Sharston) on Oct. 24th, 1938.

Licences refused	.. .. .	1
„ withdrawn	.. .. .	6
Cautions	.. .. .	4

Adoptions.

By foster-mothers	.. .. .	18
By other persons	.. .. .	10
		28

The majority of nurse children are illegitimate. Of the 245 new cases on the books in the last 12 months, only 96 were legitimate.

The number of visits paid by the child life protection officer to nurse children during the year was 1,063; visits paid by health visitors in connection with the work were 1,030.

There have been two deaths of nurse children during the year while actually in charge of a foster-mother. 31 children were admitted to hospital.

The majority of foster-mothers in Manchester undertake the care of a child for 12s. 6d. per week. A few charge 15s. and £1, a small proportion 10s., and a very small number from 2s. to 10s. per week.

The finding of foster-mothers still remains difficult, and it is therefore recorded how homes were found for the 245 new children.

Introduced by the child life protection officer	.. ..	60
Friends and acquaintances	.. .. .	81
Children returned to late foster-mothers	.. .. .	48
Found by the parents—through advertising, neighbours, etc.	.. .. .	40
Introduced by charitable organisations, etc.	.. .. .	6
Relation of parent	.. .. .	8
Found by foster-mothers	.. .. .	2
		245

The friends and acquaintances of parents seldom take a second child. This explains why there is never a supply of good mothers.

14 children who have attained the age of 9 years have been visited by the child life protection officer.

Municipal Foster Mothers.

In 1919 the Committee accepted the endowment of the Cheetham Institute for children deprived of the care of one or both of their parents, and in return undertook to provide foster mothers for such children.

Since April, 1932, foster mothers have received 15s. weekly for each child, and for this amount they undertake to clothe, feed, and care for the child. It is also a condition that the foster children should be taken regularly to the infant welfare centre. During the year 17 children have been helped by the municipal grant, and 8 children have actually been placed on the register.

Adoptions.

During the year 1938, permanent homes were found for 28 foster children, 18 of whom were legally adopted by their foster parents, and 7 by other persons. 3 other children who were handed to would-be adopters were introduced by a charitable agency.

In addition, the Maternity and Child Welfare Department introduced 16 other infants to would-by adopters, all of whom have been legally adopted.

Introductions are not made until the prospective adopters have been interviewed and visited to ascertain their suitability. If the addresses are out of the Manchester area, an opinion is obtained from the Medical Officer of Health of the district concerned. During the year, 10 children have been introduced into homes outside the Manchester area after satisfactory reports have been obtained. At the end of the year a further report is requested from the Medical Officer of the district where each child resides, stating the condition of the child and whether a legal adoption order has been obtained.

Voluntary Homes.

Five voluntary homes were visited. Two of these do not admit children under 9 years. The other three have been recommended to the Committee for exemption and licensing.

Nursing Homes Registration.

Public Health Act, 1936. Section 187-192.

There were 28 registered nursing homes in Manchester at the beginning of 1938. 6 were registered for maternity patients ; 4 for medical patients ; 9 for maternity, medical, and surgical ; 2 for maternity and surgical ; 3 for maternity and medical ; 1 for surgical ; and 3 for medical and surgical.

During 1938, 1 application for registration of a new home was received, 10 applications were received for re-registration ; of these, 3 were re-registered owing to change of keeper, 6 owing to re-allocation of beds, and 1 owing to removal to new premises. 1 home was given up and the keeper, a certified midwife, was compensated under the Midwives Act, 1936, owing to age. 53 visits were paid to homes already registered. 2 visits were also paid to a house reported as being used as a nursing home. The case was referred to the Town Clerk and a cautionary letter was sent.

Total visits paid—55.

Exemption from Registration of Voluntary Hospitals.

During 1938, 15 applications were received for exemptions under Public Health Act, 1936, section 192, and all were granted.

Summary of Work for the Year 1938.

No. of applications for registration		Maternity	—
		Maternity and others	—
		Others	1
No. of homes registered..		Maternity	—
		Maternity and others	—
		Others	1
No. of homes discontinued.		Maternity	1
		Maternity and others	—
		Others	—
No. of orders made	Refusing	Maternity	—
		Maternity and others	—
		Others	—
	Cancelling	Maternity	—
		Maternity and others	—
		Others	—
No. of applications for exemption from registration		Maternity	—
		Maternity and others	2
		Others	13
No. of cases in which exemption has been	Granted	Maternity	—
		Maternity and others	2
		Others	13
	Withdrawn	Maternity	—
		Maternity and others	—
		Others	—
	Refused.....	Maternity	—
		Maternity and others	—
		Others	—

Wythenshawe.

The census of 1931, the year in which the City boundaries were extended to include Wythenshawe, placed the population of the ward at 6,859.

During the ensuing years the development of the area as a Corporation Housing Estate has resulted in a steady growth of population, the figure at the end of 1938 being estimated to be 34,512.

In June, 1935, Beech House, Yew Tree Lane, Northenden, was bought by the Committee for a welfare centre, to serve the northern part of Wythenshawe. The centre was opened on September 23rd with two infant welfare sessions. The attendances increased rapidly, and at the end of 1938 there were, weekly, 6 infant and toddlers' sessions, 1 ante-natal session, 1 exercises class for mothers, 1 remedial exercises class for toddlers, 3 massage sessions, and 2 cookery sessions—one for demonstration and one for practical cooking, and in conjunction with these latter, 2 kindergarten classes for toddlers. For attendances, see page 294B.

The following table illustrates the increase in the number of children under five in Wythenshawe (1934-38) :—

Year	Children Born in Wythenshawe	" Founds " (residing in Wythenshawe after removal from districts outside the Manchester Area)	Removals to Wythenshawe from other districts in Manchester	Removals from Wythenshawe	Deaths	Total
1934 ..	595	13	88	30	27	639
1935 ..	680	33	96	46	52	711
1936 ..	667	9	138	67	57	690
1937 ..	702	25	148	80	57	738
1938 ..	785	35	89	58	45	806
	3,429	115	559	281	238	3,584

At the end of 1938 four health visitors were employed full time in Wythenshawe, and a certain amount of health visiting has been undertaken by the Superintendent of Northenden Centre. During the year 23,260 visits were made in this area. (See general table of health visitors' work.)

A temporary child welfare centre was opened at the Methodist School, Broadoak Road, Brownley Green, on October 24th, 1938, to serve the growing population of South Wythenshawe.

Visits Paid by the Maternity and Ophthalmic Nurses in Wythenshawe during 1938.

- 58 nursing visits to puerperal pyrexia.
- 118 nursing visits to raised temperature.
- 90 nursing visits to mastitis.
- 52 nursing visits to phlebitis.
- 11 nursing visits to scarlet fever in house.
- 10 nursing visits to unsatisfactory condition during lying-in.
- 2 nursing visits to abortions.
- 133 nursing visits to P.N.
- 51 nursing visits to skin conditions.
- 61 nursing visits to prematures.
- 33 nursing visits to unsatisfactory umbilicus.
- 6 nursing visits to spina bifida.
- 73 re-establishment of breast feeding.
- 12 investigations into puerperal pyrexia.
- 1 investigation into death of mother.

711

582 visits paid by ophthalmic nurses to cases of ophthalmia neonatorum and other eye conditions.

Total number of visits, 1,293.

WORK DONE BY THE HEALTH VISITORS.

The health visitors continue to supervise the health and welfare of mothers and children under school age in their own homes.

They also assist in the Maternity and Child Welfare Centres, and have duties in connection with the prevention and investigation of infectious diseases affecting young children, and the following up of cases of scabies and verminous conditions notified by the Education Authority.

Staff.

The staff consists of a superintendent, two assistant superintendents, 64 health visitors, 1 full-time and 2 part-time cleansing nurses, and 9 clerks.

As in previous years, four students were appointed for a period of twelve months under the training scheme for health visitors arranged with the College of Technology. The first six months is devoted to training, and during the second six months the time of these student health visitors is given entirely to the department and is divided between the maternity and child welfare centres and health visiting.

The increase in staff of three additional health visitors and one clerk followed the issue in July, 1936, by the Minister of Health, of Circular 1550, in which he drew attention of Child Welfare Authorities to the "16 per cent. of children entering school who are found to require attention for some disease or defect," and pointed out the necessity for "systematic periodical health visiting of those young children who are not in attendance at school."

During 1938 the health visitors' districts were reorganised to ensure that every child between two and five years was visited at least twice yearly, to discover and follow up conditions requiring medical supervision.

Notification of Births Act.

The total number of notifications received under the Notification of Births Act was 13,149, of which 8,760 were from doctors and institutions, 4,379 from midwives, and 10 from parents. 12,503 notifications referred to live births and 646 to still-births.

In the preceding year 12,810 notifications were received.

The total registered births for the city during 1938 numbered 11,532, of which 11,025 were live births and 507 still-births.

It has been possible in 11,071 births (10,610 live births and 461 still-births) representing 96 per cent. of the total registered births in the City, to consider in detail the place in family of each birth, and this is shown in the following table.

Full-time and premature births have been separated, but the accepted standard of 5½lbs. birth weight for premature babies was not adopted until the middle of 1938. Until then the mother's statement was recorded. A few of the births classed as full-time, therefore, were under 5½lbs. in weight, and a number recorded as premature were over 5½lbs. in weight.

1938 Births arranged to show Place in Family, etc.

Place in Family	NUMBER OF PREGNANCIES				NUMBER OF PREGNANCIES				Live and Still-births		
	Live Births		Live Births		Still-births		Still-births				
	Legitimate	Illegitimate	1938	1937	Legitimate	Illegitimate	1938	1937			
	Full time	Pre-mature	Full time	Pre-mature	Per cent.	Per cent.			Per cent.	Per cent.	
1st ..	3,282	347	254	35	36·90	36·90	149	17	36·00	36·89	
2nd ..	2,455	176	77	10	25·62	26·00	79	7	18·65	25·33	
3rd ..	1,439	100	44	..	14·92	14·14	67	2	15·00	14·92	
4th ..	832	47	18	1	8·46	8·33	31	1	6·94	8·40	
5th ..	448	37	18	1	4·75	5·18	30	2	6·94	4·84	
6th ..	313	21	14	2	3·30	3·31	22	3	5·42	3·39	
7th ..	192	12	4	..	2·00	2·20	19	2	4·56	2·07	
8th ..	143	13	2	..	1·50	1·51	11	1	2·60	1·54	
9th ..	95	3	..	..	·92	·90	8	..	1·73	·95
10th ..	74	4	1	..	·74	·70	2	1	·65	·74	
11th ..	39	8	1	..	·45	·42	4	..	·87	·46	
12th ..	22	3	..	..	·23	·21	2	..	·43	·24
13th ..	11	..	1	..	·11	·07	..	..	..	·11
14th ..	4	..	..	..	·04	·04	1	..	·21	·05
15th ..	5	..	..	..	·04	·05	..	..	..	·05
16th ..	1	..	..	..	·01	·02	..	..	..	·01
17th ..	1	..	..	..	·01	·01	..	..	..	·01
18th ..	..	..	..	..	..	·01	..	..	..	..
	9,356	771	434	49	100·00	100·00	425	36	100·00	100·00	
	10,610				461						
	11,071										

The ages of the mothers at the time of the birth of 10,968 live and stillborn children, representing 95 per cent. of the total births in 1938, is shown below :—

Age of Mothers at Birth of Children during 1938.

Place in Family of each Birth.

AGE GROUPS	PLACE IN FAMILY																		TOTAL BIRTHS	
	Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18
15—19	306	37	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	344
20—24	1523	673	216	56	12	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2,481
25—29	1453	1059	586	283	94	37	9	3	3	..	..	..	..	..	..	..	..	..	..	3,527
30—34	554	708	527	315	198	134	69	35	14	9	1	3	..	..	..	..	..	..	..	2,567
35—39	185	255	261	195	160	148	101	88	47	37	22	5	3	1	..	..	..	..	..	1,508
40—44	19	36	47	74	60	49	42	37	37	28	22	13	5	4	5	1	..	..	..	479
45—49	2	2	3	2	6	5	6	6	5	8	7	6	3	..	..	..	1	..	..	62
	4042	2770	1641	925	530	374	227	169	106	82	52	27	11	5	5	1	1	..	..	10,968

This table has been sub-divided to show the age of the mother and the place in family of these live births and still-births. Distinction has been made also between legitimate and illegitimate births.

Age of Mothers at Birth of 10,511 Live Children during 1938.

Place in Family of each Birth. (Legitimate.)

AGE GROUPS	PLACE IN FAMILY																		TOTAL BIRTHS	
	Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18
15—19	230	34	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	265
20—24	1368	628	205	54	12	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2,268
25—29	1324	1005	549	275	86	33	9	3	3	..	..	..	..	..	..	..	..	..	..	3,287
30—34	498	666	492	302	184	127	59	33	13	9	1	2	..	..	..	..	..	..	..	2,386
35—39	162	233	233	174	140	123	94	79	45	34	22	5	2	..	..	..	..	..	..	1,346
40—44	13	33	45	67	53	44	35	35	33	28	18	12	5	4	5	1	..	..	..	431
45—49	1	2	3	2	4	5	5	5	4	7	6	6	3	..	..	..	1	..	..	54
	3596	2601	1528	874	479	333	202	155	98	78	47	25	10	4	5	1	1	..	..	10,037

Place in Family of each Birth. (Illegitimate.)

AGE GROUPS	PLACE IN FAMILY																		TOTAL BIRTHS	
	Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18
15—19	67	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	70
20—24	110	25	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	138
25—29	68	25	19	3	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	122
30—34	24	18	12	4	7	2	1	..	..	..	..	..	..	..	..	..	..	..	..	68
35—39 ..	12	12	10	9	4	11	2	1	..	1	..	..	1	..	..	..	..	..	..	63
40—44	1	1	1	2	3	1	1	1	..	..	1	..	..	..	..	..	..	..	..	12
45—49	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	283	84	44	19	19	16	4	2	..	1	1	..	1	..	..	..	..	..	..	474

The number of new live births allocated to the health visitors for visiting during the year was 11,532.

Age of Mothers at Birth of 457 Stillborn Children during 1938.

Place in Family of each Still-birth. (Legitimate.)

AGE GROUPS	PLACE IN FAMILY																		TOTAL BIRTHS	
	Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18
15—19	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
20—24	38	16	9	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	64
25—29	57	28	17	4	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	111
30—34	30	22	23	9	7	4	9	2	1	..	..	1	..	..	..	..	..	..	..	108
35—39	10	10	17	12	14	13	4	7	2	1	..	..	..	1	..	..	..	..	..	91
40—44	3	2	1	5	4	3	5	1	4	..	3	1	..	..	..	..	..	..	..	32
45—49 .. ..	..	..	..	..	2	..	1	1	1	1	1	1	..	..	..	..	..	..	..	7
	146	78	67	31	30	22	19	11	8	2	4	2	..	1	..	..	..	..	..	421

Place in Family of each Still-birth. (Illegitimate.)

AGE GROUPS	PLACE IN FAMILY																		TOTAL BIRTHS	
	Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18
15—19	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
20—24	7	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11
25—29	4	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
30—34	2	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	5
35—39	1	..	1	..	2	1	1	1	..	1	..	..	..	..	..	..	..	..	..	8
40—44	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	4
45—49 .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	17	7	2	1	2	3	2	1	..	1	..	..	..	..	..	..	..	..	..	36

The number of still-births allocated to the health visitors for visiting during the year was 507.

“ Found ” Children.

In addition, the health visitors also visited 1,395 other children for the first time. They belonged to families who removed into Manchester during the year. The year of their birth is given below :—

369	children born in	1938
330	„ „	1937
308	„ „	1936
245	„ „	1935
143	„ „	1934
<hr/>		
<u>1,395</u>		

Deaths.

993 deaths occurred during the year amongst children under five years of age.

The age group classification of these deaths is :—

759	deaths of children under 1 year of age.
107	„ „ 1 to 2 years of age.
54	„ „ 2 to 3 „ „
39	„ „ 3 to 4 „ „
34	„ „ 4 to 5 „ „

The sub-joined table shows the distribution according to age of deaths of children under 1 year :—

Died under 1 day	Died 1 to 7 days	Died 1 week to 4 weeks	Died 1 month to 3 months	Died 3 months to 6 months	Died 6 months to 9 months	Died 9 months to 12 months	Total
113	130	107	154	119	73	63	759

Table 3 (page 324), shows the classification of these deaths in wards and according to the principal causes of death. Tables 4 (page 325) and 5 (page 326) show a similar classification for the age-groups 1 to 2 years and 2 to 5 years.

The following table (Table A), gives mortality rates for the past ten years amongst children aged 1 to 5 years, based upon the number of live births for the year.

TABLE A.

YEAR	Infantile Mortality Rate	Mortality Rate, 1—2 Group	Mortality Rate, 2—5 Group	Mortality Rate, 1—5 Group	Total Cases of Measles		Total known Cases of Whooping Cough	
					Cases	Mortality Rate per cent.	† Cases	Mortality Rate per cent.
1929 ..	97.3	31.10	22.6*	54.6	9,512	.63	4,037	5.44
1930 ..	78.7	18.3	15.8	34.1	10,738	1.35	1,388	2.66
1931 ..	83.8	22.9	18.2	41.1	7,771	.83	3,150	2.73
1932 ..	85.4	22.3	20.2	42.5	12,238	.99	2,280	3.50
1933 ..	74.9	16.4	16.9	33.3	6,350	.75	2,230	2.11
1934 ..	69.0	14.8	17.3	32.5	11,383	.85	1,565	2.23
1935 ..	71.3	14.5	15.4	29.9	9,907	.98	1,632	2.81
1936 ..	77.3	15.5	12.9	28.4	8,807	1.37	1,457	3.22
1937 ..	76.2	14.0	13.9	27.9	6,550	.68	1,403	3.77
1938 ..	68.8	9.7	11.5	21.2	9,949	.57	1,075	1.3

* Transferable deaths not included for this year.

† Not compulsorily notifiable, therefore these figures are only approximate.

It will be noticed that the mortality rate for the 1—2 years old and 2—5 years old is the lowest ever recorded, although the year included the second half of the measles epidemic.

The following table and charts show this reduction in quinquennial periods since 1900 :—

Infantile Mortality and Young Child Mortality.

1—2 Years and 2—5 Years per 1,000 Births.
Quinquennial Periods, 1900—1938.

Average—5 years	Infantile Mortality	Child Mortality, 1—2 years	Child Mortality, 2—5 years
1900—1904	178·8	53·8	41·0
1905—1909	152·7	46·2	35·9
1910—1914	133·5	44·3	35·3
1915—1919	111·1	40·3	39·8
1920—1924	94·6	31·2	22·1
1925—1929	91·3	28·2	23·1
1930—1934	78·4	18·9	17·7
1935—1938 (4 years)	73·4	13·4	13·4

Still-births.

The health visitors visited the mothers of 457 still-births occurring in the practice of doctors and midwives, and in the City hospitals.

Ante-natal Care.

To try to ensure adequate ante-natal care of the mother, should she subsequently become pregnant, the health visitors visit at the end of six months all homes in which still-births and neo-natal deaths have occurred. During the period January 1st, 1937, to December 31st, 1937, 468 still-births and 312 neo-natal deaths occurred in the City. 944 special visits were paid by the health visitors to these mothers, and in this way 39 expectant mothers were brought to our notice. These were revisited at intervals of one month, a total of 205 such visits being paid.

In addition, the health visitors made 2,285 visits to expectant mothers discovered in the course of routine home visits. Many of these subsequently attended the ante-natal clinics.

Summer Diarrhœa.

From July 15th to September 30th, 72 cases of summer diarrhœa were visited. Of these, 17 occurred during the last two weeks in July, 29 during the month of August, and 26 during the month of September, Medical attention was obtained in 62 instances and 30 children were treated in hospital.

The details and distribution of these cases are shown in Table B, which immediately follows:—

TABLE B.

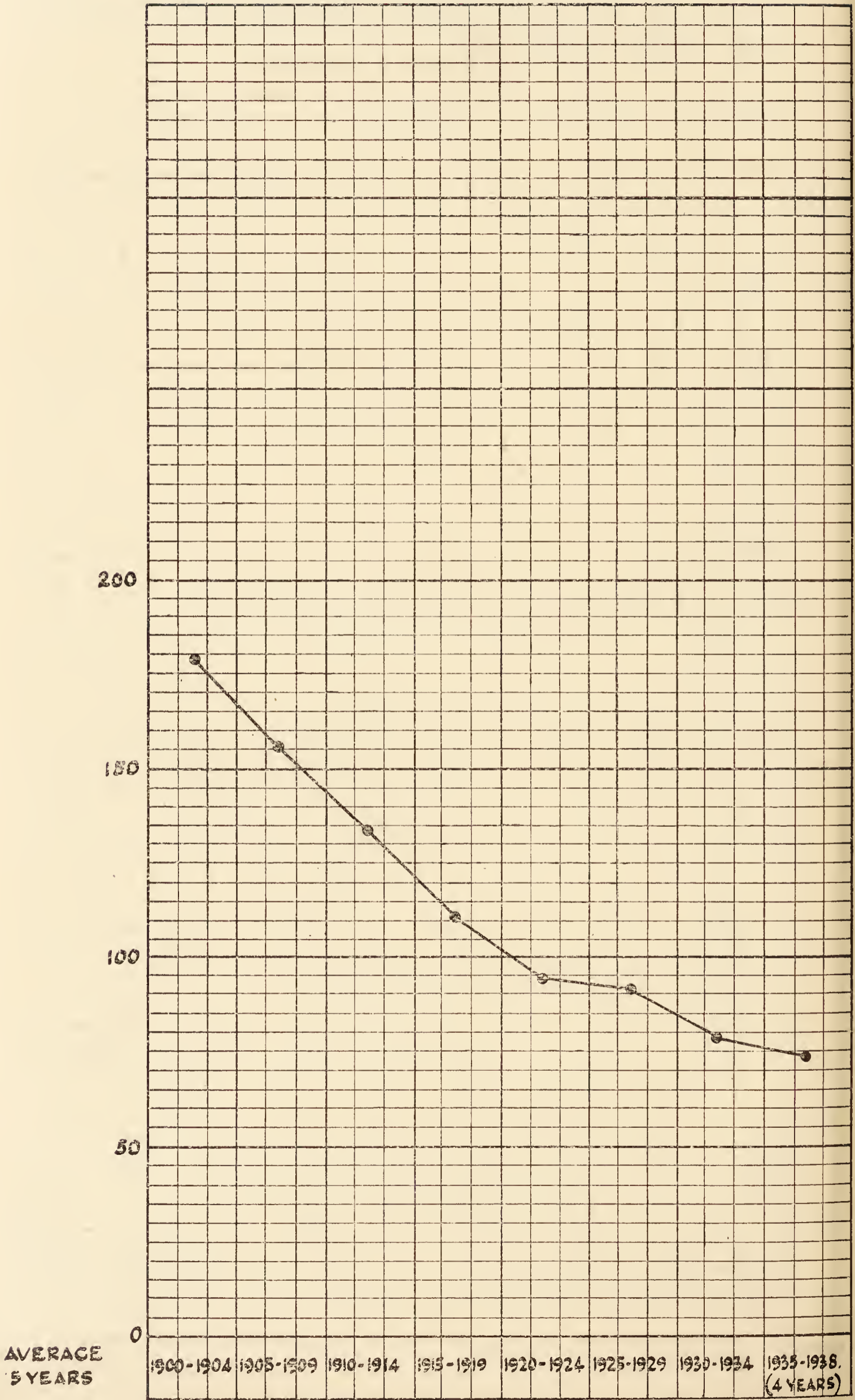
Summer Diarrhœa. Cases Visited by the Health Visitors in 1938 (Children under 5 Years) compared with those Visited during the Four preceding Years.

	Year				
	1934	1935	1936	1937	1938
Total number of cases visited	86	80	77	104	72
Number of cases occurring in—					
July (15th–31st)	38	22	23	14	17
August	33	32	28	45	29
September	15	26	26	45	26
<i>Cases in Wards.</i>					
Oxford .. .. .	..	..	..	1	..
All Saints	7	3	5	1	2
Ardwick	2	8	5	5	2
Beswick	1	2	2	..	2
Blackley .. .. .	..	..	1	..	1
Bradford .. .. .	..	2	1	7	10
Collegiate	1	..	2	..	..
Collyhurst	2	1	1	3	1
Cheetham	1	2	1	5	2
Crumpsall	1	1	..	..	1
Gorton North	1	12	5	7	2
Gorton South	7	2	2	7	2
Harpurhey	2	5	..	1	2
Levenshulme	2	2	1	..	5
Longsight	2	..	..	..	..
Medlock Street	8	4	..	4	2
Miles Platting	7	6	1	..	1
Moston	2	..	2	2	3
Moss Side East	3	..	3	9	1
Moss Side West .. .. .	..	2	..	7	..
New Cross	7	7	6	3	2
Newton Heath	7	2	1	1	5
Openshaw	3	1	..	2	3
Rusholme	2	5	11	2	5
St. Clement's .. .. .	..	..	..	..	..
St. George's	5	2	4	1	1
St. John's	1	1	..	1	..
St. Luke's	3	2	10	2	1
St. Mark's	1	3	7	5	2
St. Michael's .. .. .	..	..	2	3	2
Withington, Didsbury, and Chorlton-cum-Hardy	5	1	3	6	6
Wythenshawe	3	4	1	18	6
Exchange .. .. .	..	..	..	1	..
Number affected under 1 year of age	57	42	40	53	43
Method of feeding at onset of illness—					
Breast	10	3	9	14	8
Mixed	9	15	6	7	2
Hand	38	24	25	32	33
Deaths—					
Total number	22	18	12	18	16
Number under 1 year of age	10	15	8	16	13
Number under 4 months of age	12	12	4	9	3

CITY OF MANCHESTER

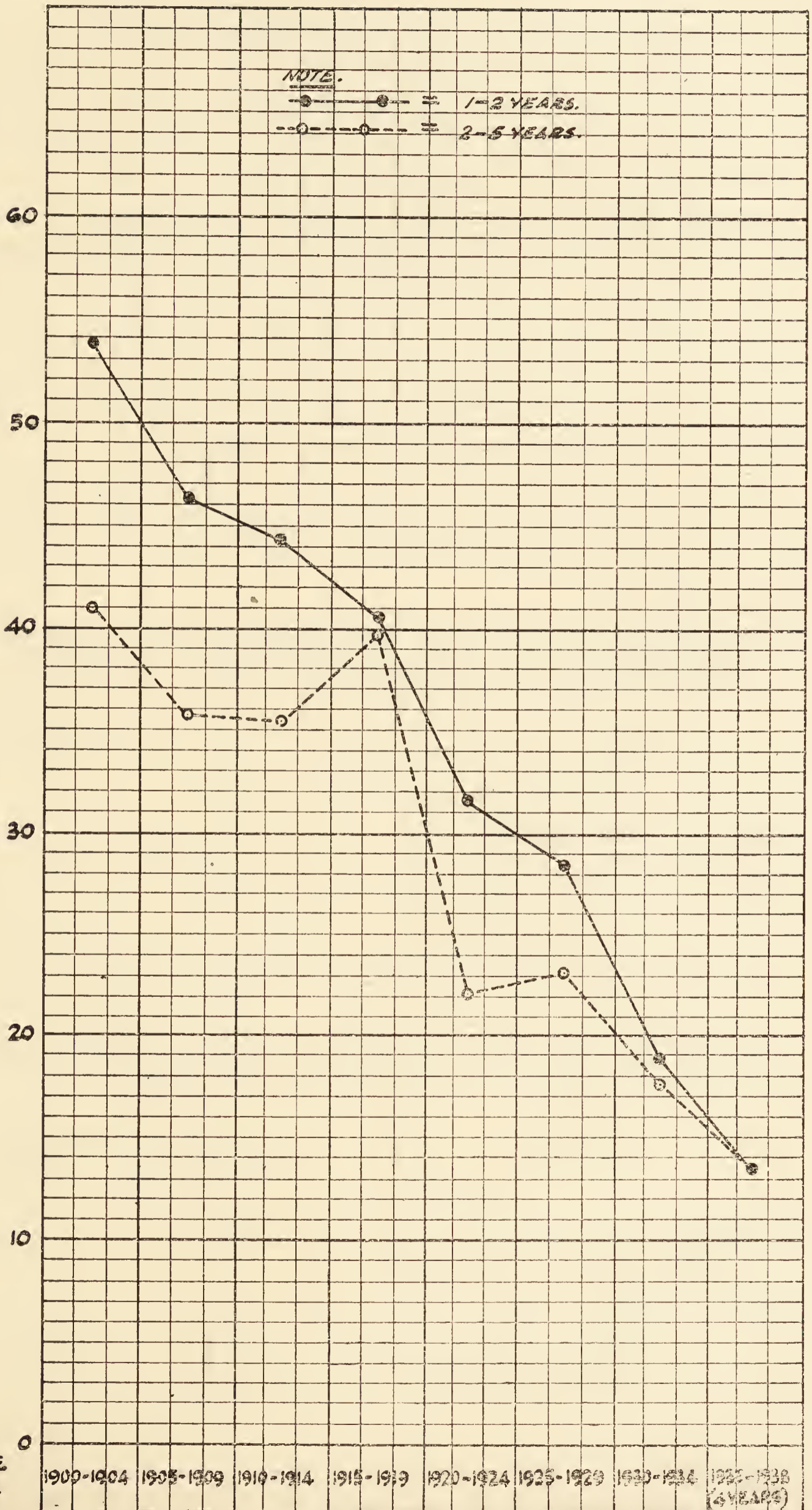
INFANTILE MORTALITY RATE

QUINQUENNIAL PERIODS 1900-1938.



CITY OF MANCHESTER

YOUNG CHILD MORTALITY RATE 1-2 YEARS AND 2-5 YEARS,
PER 1000 BIRTHS. QUINGUENNIAL PERIODS 1900-1938.



AVERAGE
 YEARS.

Co-operation with School Medical Officer.

Four children were referred to the School Medical Officer for admission to the Residential School for Physically Defective Children, Didsbury. There are still a few parents who are indifferent to deformity in their children, and unwilling to carry out prolonged treatment. Such children are supervised by the health visitors (*a*) to ensure that medical treatment is obtained ; and (*b*) to help the parents to recognise that such deformities can be largely remedied, and the future efficiency and happiness of the child correspondingly increased.

In markedly unsatisfactory cases a summary of the first five years of life is sent to the School Medical Officer on the child reaching school age.

Such summaries relating to 1,880 such children were sent to the School Medical Department during the year. The following up of children under 5 who attend nursery schools and classes, and are found at the routine medical inspection to be suffering from minor physical defects, is also undertaken by the health visitors.

Assistance is also given by the health visitors to the doctors responsible for immunising children attending elementary schools in the City against diphtheria, and attendance was made for this purpose at 167 sessions during 1938.

Admissions to Hospital of Children under 5 Years of Age, as Recommended from the Child Welfare Centres of the City.

The thirty beds retained by the Corporation at the Duchess of York Hospital for Babies—twenty cots for children under 1 year and ten beds for children 1 to 3 years—have been fully occupied.

Recommendations for these beds are received from the medical officers of the child welfare centres, and arrangements are then made for the admission to hospital of the children recommended.

Recommendations for the admission of children to Booth Hall Hospital have similarly been made and admission to hospital arranged.

The following table shows the number of children recommended for each hospital and the number who were actually admitted :—

Hospital	Number recommended	Number admitted
The Duchess of York Hospital for Babies	Cots	146
	Large beds	92
Booth Hall Hospital	189	166
Totals	427	368

An analysis of the reasons which prevented the admission of the 59 children recommended, but not admitted, is given below :—

	Children
Admitted to private cots	3
„ to other hospitals	17
Improved whilst on waiting list	6
Parents' permission withheld	22
Removed from Manchester	3
Died before a vacancy occurred	1
Infection in the home	0
Unsuitable case for hospital	1
Suffering from tonsilitis	3
Sent for but advised to return later	3
	<u>59</u>

The diagnosis made in the case of children under one year admitted to small cots in the Duchess of York Hospital and to Booth Hall Hospital, was as follows :—

	Duchess of York Hospital	Booth Hall Hospital
Prematurity	14	—
Congenital diseases and defects	1	—
Nutritional conditions	56	10
Gastro-intestinal conditions	35	8
Respiratory conditions	14	4
Surgical conditions	1	—
Miscellaneous diseases of bacterial origin.	8	1
Miscellaneous nervous conditions	1	1
	<u>130</u>	<u>24</u>

For children over one year admitted to large cots in the Duchess of York Hospital or to Booth Hall Hospital, the diagnosis was as follows :—

	Duchess of York Hospital	Booth Hall Hospital
Nutritional conditions	54	47
Gastro-intestinal conditions	4	7
Respiratory conditions	8	11
Surgical conditions	3	2
Miscellaneous diseases of bacterial origin.	2	14
Miscellaneous nervous conditions	1	3
Infectious disease	—	1
Tonsils and adenoids	—	57
	72	142

The ages of children on admission were :—

	Duchess of York Hospital	Booth Hall Hospital
Under 1 month	9	—
1—3 months	45	9
3—6 „	23	4
6—9 „	23	5
9—12 „	14	6
1—2 years	*62	35
2—3 „	26	38
3—4 „	—	46
4—5 „	—	23
	202	166

* Sixteen of these children, though over age, being greatly underweight and undersized, were admitted as urgent “cot” cases.

The average length of stay in the Duchess of York Hospital varies from 6 days to 20 weeks. The average was about 7 weeks.

The average length of stay in Booth Hall Hospital was 33·6 days.

*Special Visits to Aged Persons under Section 34, Manchester Corporation
(General Powers) Act, 1930.*

The health visitors have paid 61 visits to elderly women referred to the Medical Officer of Health by general practitioners, relieving officers, and others, as suffering from serious infirmity and unable to provide themselves with proper care and attention. Sixteen such cases have been under supervision during 1938, arrangements being made for better care in each case.

Measles, German Measles, Whooping Cough, and Pneumonia.

Measles.

The investigation of cases of measles has been carried out without a break since 1916, and is directed towards securing good nursing for and the isolation of infective cases, preventing the spread of infection, and, more particularly, reducing the risk of infection amongst children under five years of age.

In the 1937-1938 epidemic, two children lost the sight of one eye. One of these was the result of an acute measles infection, and the other followed scarlet fever and german measles.

The subjoined table shows the number of cases of measles during the last four epidemics, with a comparison of the deaths of children under and over five years of age.

Measles—Years 1931 to 1938 (inclusive).

YEAR	Known Cases	Over 5 years	Children under 5 years	DEATHS					Total under 5 years	Total Measles Deaths		
				Under 1 year	1 year	2 years	3 years	4 years				
1	1931	7,771	3,077	4,694	11	28	11	8	2	60	65	} 50 in 4th quarter } 89 in 1st quarter
	1932	12,238	4,742	7,496	26	55	14	11	5	111	122	
2	1933	6,350	2,143	4,207	7	23	4	4	5	43	48	} 39 in 4th quarter } 88 in 1st quarter
	1934	11,383	4,065	7,318	18	40	12	7	11	88	97	
3	1935	9,907	3,387	6,620	16	51	7	10	11	95	98	} 90 in 4th quarter } 104 in 1st quarter
	1936	8,807	3,236	5,571	37	46	13	7	5	108	121	
4	1937	6,550	2,507	4,043	9	16	6	4	5	40	45	} 37 in 4th quarter } 43 in 1st quarter
	1938	9,949	3,166	6,783	13	23	7	5	4	52	57	

The most striking point in this table is the fall in the number of deaths under five. Thus in the 1935-1936 epidemic the total deaths were 219 with a rate mortality of 1.17 per cent. and in the 1937-1938 epidemic the deaths were 102 with a rate mortality of 0.6 per cent.

First cases of measles and german measles in a household are notifiable, and the majority of notifications are received from medical practitioners. A number, however, are reported by the education authority, and subsequent cases are either discovered by the health visitor or are notified by the parents on a postcard left for the purpose by the health visitor at her previous visit.

When a doctor is already in attendance, the health visitor is responsible only for ascertaining the source of infection, ensuring the isolation of the case, arranging school exemption, and advising the domiciliary disinfection which should be carried out. Frequently, however, mothers appeal to the health visitor for assistance in carrying out the doctor's instructions as to the nursing of the patient and the hygiene of the sick room. This applies particularly to the poorer closely-populated districts of the city where the disease spreads rapidly, and where facilities and materials for adequate home nursing are difficult to secure.

As primary cases only are notifiable, the health visitor, in her supervision of contacts, is often the means of discovering other children who have developed the disease. It is sometimes difficult for parents to recognise signs that the disease is taking an abnormal course, and the health visitor's visits are valuable in securing the recall of the doctor in time to prevent complications becoming serious.

The Public Health Committee has an arrangement with the Manchester and Salford District Nursing Association for the nursing at home, where necessary, of children suffering from measles and its complications.

Accommodation is provided in Monsall and Booth Hall Hospitals for the reception of cases where the home conditions are unfavourable.

A grant, originally made in 1917, to obtain milk for young children suffering from measles in families where the income is below the standard scale is made after the circumstances have been investigated. Particulars of this will be found on page 317.

Whooping Cough.

Whooping cough is not compulsorily notifiable, but parents and guardians of school children are required to notify the head teacher of any child known or suspected to be suffering from the disease. In addition to the notifications thus received from the Education Department a considerable number of cases are discovered in the course of home-visiting, but this total by no means represents the actual number, as many cases escape our notice.

The home visitation of children suffering from whooping cough follows the same lines as that of measles. The number of cases notified was 1,075, all of which were visited.

In addition, 696 cases of whooping cough were found after complete recovery had been made, and have been classified as "late" cases.

The subjoined table shows the incidence of pneumonia in whooping cough and the distribution according to home cases or hospital cases :—

	Nursed at home		Removed to hospitals		* Developed Whooping Cough whilst in hospitals		Totals
	949		114		12		
	Not having Pneumonia	Complicated by Pneumonia	Not having Pneumonia	Complicated by Pneumonia	Not having Pneumonia	Complicated by Pneumonia	
Number of cases ..	930	19	78	36	11	1	1,075
Recovered ..	927	15	76	29	11	1	1,059
Died	3	4	2	7	—	—	16
Case fatality	·32%	21·05%	2·56%	19·44%	Nil	Nil	1·48%

* Patients in hospital for other conditions developing whooping cough.

The total number of visits paid to whooping cough cases was 2,257.

Influenza and Pneumonia.

Influenza is not notifiable, but all cases which come to the notice of the health visitors, either in the course of their own enquiries or through the death returns, are investigated.

Acute primary pneumonia is notifiable, but approximately 12·59 per cent. of the total number of known cases are revealed only through the death returns.

The figures relating to the investigation of influenza and pneumonia are given on pages 327 to 329.

Assistance.

The grant (originally made in 1917) to supply milk to young children suffering from measles, whooping cough, and pneumonia in families where the actual income is below the standard scale, was continued during the year. Applications for milk were granted in 1,155 cases, and 16,149 pints of milk were given.

The general statistics relating to measles, German measles, and whooping cough are found on pages 48 to 51.

Work at Monsall Disinfecting Station.

Vermin.

The Education Department is the main source of notification of verminous cases. During the year 511 school children were notified as verminous, compared with 389 in 1937, 402 in 1936, and 450 in 1935. The cleansing of these children is mainly carried out by the school nurses, while arrangements are made by the health visitors for adults of children under five in the family to be cleansed at home. Eleven school children were compulsorily cleansed at Monsall Cleansing Station, and 63 adults voluntarily presented themselves there for treatment. The parents of four school children who were allowed to become verminous following cleansing, were prosecuted by the Education Authority and fines were imposed.

Since 1935 the special steel comb used at Monsall Cleansing Station has been made available to the mothers of verminous children at a reduced price, and during 1938, 131 combs were distributed as compared with 66 in 1937.

The special nurses paid 30 visits to the homes of verminous children in addition to 1,577 made by the health visitors.

Scabies.

The main source of notification of scabies is the Education Department. Many additional cases are, however, brought to our notice either as contacts of those notified by the School Medical Officer, or as new cases.

The source of these notifications is shown as follows:—

	School Medical Officer	Booth Hall Hospital	Private Medical Practitioners	Centre Medical Officers	Health Visitors	Discovered during Disinfestation or sent by former Patients	Applied voluntarily for Treatment	Total
1937 ..	754	23	27	7	93	45	..	949
1938 ..	938	40	102	35	92	23	60	1,290

The average number of treatments per person is three, and during the year 2,638 treatments were given.

This is shown in the following table:—

Year	Males (adult)	Females (adult)	School Children	Children under 5 years	Total
1936	—	—	—	—	1,322
1937	405	774	234	510	1,923
1938	598	1,167	268	605	2,638

The increase in the number of notifications received and treatments given is explained by (a) the thoroughness of the health visitors' investigation to discover source of infection and contacts, and (b) the greater use made of the Monsall Station by medical practitioners.

The disinfestation of the bedding is stipulated for in every case before arrangements for treatment are completed, and the personal clothing is disinfested each time the patient attends for treatment.

Disinfestation of Persons removed under Slum Clearance Scheme.

The following table shows the number of persons treated during the year 1938. Further references to this work is contained on page

NOTE B. — Persons removed under Slum Clearance Scheme—disinfestation voluntary.

NOTE C. — Persons removed under Housing Scheme—disinfestation compulsory.

District	Infant Work				ANTE-NATAL CARE							Verminous	Scabies		Infectious Diseases										Sanitary Defects		House to House Inspection	Lime-wash visits	Total Number of Visits	
					Stillbirths		Neo-Natal Deaths		Expectant Mothers		Primary				Subsequent	Primary	Subsequent	Primary Measles	Subsequent Measles	Primary German Measles	Subsequent German Measles	Primary Whooping Cough	Subsequent Whooping Cough	Primary Pneumonia	Subsequent Pneumonia	Influenza				Special Visits	Reported	Remedied
	Primary	Subsequent	Subsequent	Primary	Subsequent	Primary	Subsequent	Primary	Subsequent	Primary Measles		Subsequent Measles	Primary German Measles	Subsequent German Measles													Primary Whooping Cough	Subsequent Whooping Cough	Primary Pneumonia				Subsequent Pneumonia	Influenza	Special Visits	Reported	Remedied
Red Bank and Strangeways ..	187	1,340	3,655	5	2	4	5	4	7	55	57	36	52	62	162	77	307	3	2	19	43	35	57	1	6	36	3	600	66	6,888

In addition, the Jewish Health Visitor made 46 attendances at a Child Welfare Centre during 1938.

Year	Males	Females	School Children	Children under 5 years	Total
1936	280	297	240	184	1,001
1937	420	429	311	249	1,409
1938—B. ..	8	7	4	6	25 } 1,454 1,429 }
C. ..	451	441	323	214	

The special nurse employed in the treatment of scabies, verminous conditions, and for disinfestations is assisted by two part-time nurses who are required six and four sessions weekly respectively. During 1938, 600 sessions were worked by these nurses as compared with 488 in 1937. 189 of these were evening sessions to suit the convenience of workers unable to attend during the day, as compared with 110 in 1937.

N.S.P.C.C.

The Section is again indebted to this Society for valuable assistance. During the year 29 cases were referred for various reasons. The help given by the Society is gratefully acknowledged.

Jewish Ladies' Visiting Association.

This Association employs a trained nurse, who is also a qualified health visitor, for charitable work amongst the Jews in the Red Bank and Strangeways Wards of the City, and part of her time is given to maternity and child welfare work. This part is carried out under the general supervision of the Public Health Department, and whilst mainly devoted to the care of mothers and children under 5, included 600 house-to-house inspections and 675 charity visits for the Association which are not directly connected with the work of this department. Details of her public health work are shown in table 318A.

A new system of recording the statistics of the Health Visitors' Section was introduced on January 1st, 1938. It is now possible to record the number of families visited by the health visitors, as well as to analyse the total number of visits in age groups.

The following tables summarize the work of the health visitors during the year :—

**Total Number of Individuals Visited by Health Visitors during 1938.
Analysis in Age Groups.**

AGE GROUP	January	February	March	April	May	June	July	August	September	October	November	December	TOTALS
0 to 1 year	4,485	4,112	4,988	3,844	4,709	5,594	4,370	5,621	4,346	5,111	6,139	3,887	57,206
1 to 2 years	2,823	2,636	3,048	2,291	3,003	2,738	2,615	3,624	2,722	2,900	3,738	2,157	34,295
2 to 3 "	2,792	1,396	2,891	2,177	2,793	2,340	2,459	3,022	2,369	2,673	3,453	2,051	30,416
3 to 4 "	2,637	2,490	2,726	2,014	2,373	1,980	1,994	2,524	1,952	2,183	2,833	1,637	27,343
4 to 5 "	3,133	2,599	3,006	2,242	2,541	2,154	2,286	2,910	1,995	2,163	2,847	1,609	29,485
5 to 14 "	2,556	2,005	1,625	1,138	800	621	446	432	446	458	656	341	11,524
Over 14 "	785	973	706	541	767	655	698	671	432	495	693	393	7,809
Totals	19,211	16,211	18,990	14,247	16,986	16,082	14,868	18,804	14,262	15,983	20,359	12,075	198,078

Individuals Visited at least Once during 1938.

0 to 1 year	2,246	2,961	2,310	1,765	1,747	1,622	1,247	1,392	1,016	1,174	1,253	739	19,472
1 to 2 years	2,394	1,921	1,284	921	1,182	764	518	511	278	203	136	59	10,171
2 to 3 "	2,274	1,884	2,179	1,850	1,105	684	466	486	276	209	151	76	11,640
3 to 4 "	2,579	1,719	1,146	848	950	594	434	368	271	213	146	80	9,348
4 to 5 "	2,738	1,768	1,454	1,054	1,134	830	667	656	354	295	259	111	11,320
5 to 14 "	1,394	1,081	570	374	239	227	151	117	131	177	173	74	4,708
Over 14 "	691	474	428	318	405	353	280	300	197	236	297	164	4,143
Totals	14,316	11,808	9,371	7,130	6,762	5,074	3,763	3,830	2,523	2,507	2,415	1,303	70,802

Number of Families
visited

13,883

12,520

13,867

10,386

12,668

11,629

11,176

13,986

10,912

12,228

15,490

9,183

Analysis in Types of Visits.

Type of Visit	January	February	March	April	May	June	July	August	September	October	November	December	Totals
INFANT WORK													
Primary visits	1,166	952	1,325	898	991	1,163	938	1,203	898	1,017	1,129	717	12,397
Subsequent visits	3,408	3,378	4,268	2,965	3,737	3,932	3,484	4,490	3,483	3,930	5,166	3,305	45,546
Children 1—2 years	2,837	2,811	3,713	2,278	3,051	2,808	2,639	3,325	2,723	2,828	3,860	2,198	35,071
" 2—3	2,796	2,794	3,463	2,190	2,825	2,428	2,467	3,067	2,403	2,642	3,553	2,022	32,650
" 3—4	2,649	2,610	3,228	2,027	2,414	2,076	2,026	2,575	1,973	2,131	2,966	1,668	28,343
" 4—5	3,213	2,822	3,491	2,283	2,617	2,292	2,365	3,021	2,061	2,185	2,940	1,662	30,972
" 5—14	1,424	2,117	2,442	1,143	796	642	450	441	420	440	650	336	11,301
Persons over 14	481	718	766	524	768	666	698	678	451	460	665	379	7,234
Children—removals	601	648	724	499	775	779	724	816	587	662	919	499	8,233
" —not seen	956	702	853	588	743	816	731	936	677	685	1,045	566	9,298
" —nursed out over 5 years	16	6	2	5	14	8	5	11	5	5	14	6	97
ANTE-NATAL CARE.													
Still-births, primary	53	30	59	35	36	52	31	72	38	40	37	20	503
" subsequent, Ex.	10	2	9	6	6	11	9	9	7	5	9	5	89
" N.P.	32	16	44	10	37	28	17	36	18	17	33	4	292
Neonatal deaths, Ex.	7	5	4	4	1	4	4	3	1	4	4	1	42
" N.P.	24	18	19	8	28	33	26	20	9	20	25	7	237
Expectant mothers, primary visits	191	229	234	168	176	153	188	246	149	158	260	133	2,285
Expectant mothers, subsequent visits	82	85	110	69	80	83	88	106	76	65	100	74	1,018
OVERCROWDING AND SANITARY DEFECTS.													
Overcrowdings	1	6	4	2	3	2	6	3	3	8	3	1	42
Defects reported	41	31	45	19	19	16	20	11	24	30	26	15	297
Special visits	11	4	5	4	1	2	7	6	4	8	8	2	62
SCABIES.													
Primary visits	80	98	96	46	50	78	84	64	115	141	131	55	1,038
Subsequent visits	118	134	184	123	90	106	104	97	163	150	278	124	1,670
VERMINOUS WORK.													
Primary visits	47	43	47	45	39	75	32	17	36	49	48	23	501
Subsequent visits	72	54	85	78	66	92	116	121	87	90	138	77	1,076
MEASLES WORK.													
Primary visits	3,165	2,328	2,571	855	381	143	41	48	43	55	90	21	9,741
Subsequent visits	3,513	3,516	4,161	2,257	1,468	543	157	81	55	58	110	46	15,965
German measles, primary	31	26	56	34	41	47	30	22	19	19	17	21	363
" subsequent	26	32	52	45	40	42	34	39	12	22	26	11	381
WHOOPING COUGH.													
Primary visits	38	42	87	64	89	111	74	95	114	49	123	44	930
Subsequent visits	63	58	88	82	127	124	99	146	124	142	170	104	1,327
PNEUMONIA.													
Primary visits	273	135	221	177	242	176	97	91	66	119	200	126	1,923
Subsequent visits	228	180	242	191	231	242	124	116	88	102	185	164	2,093
INFLUENZA.													
Primary visits	22	8	17	14	30	11	4	3	2	6	23	14	154
Subsequent visits	12	12	7	2	9	24	3	4	4	6	6	13	102
MISCELLANEOUS.													
Investigations <i>re</i> infantile diarrhoea	10	9	6	1	12	6	11	7	9	9	10	4	94
Aged and infirm cases	3	5	4	2	11	1	2	12	9	4	4	4	61
Wrong addresses:—													
Infants	71	44	71	27	36	45	64	58	30	30	58	20	554
Infectious diseases	31	15	18	8	5	14	4	2	6	5	10	4	122
Special visits (not otherwise accounted for)	145	150	34	86	119	32	183	69	33	28	27	12	918
Visits, "Out"	1,720	1,660	1,800	1,086	1,478	1,431	1,600	1,873	1,421	1,445	2,030	1,214	18,758
TOTAL	29,667	28,533	34,655	20,948	23,682	21,337	19,806	24,040	18,425	19,869	27,096	15,722	283,780

**Statement showing Time Spent by Health Visitors on Duties
other than Home Visiting during 1938.**

Month	Maternity and Child Welfare Centres	Diphtheria Immunisation Clinics	Mothercraft Exhibitions	Convalescent Homes and Child Life Protection	Total Number of Sessions
January	448	20	7	7	482
February	548	19	4	10	581
March	571	23	9	17	620
April	426	15	4	19	464
May	483	16	33	19	551
June	538	13	5	46	602
July	544	9	3	21	577
August.. .. .	641	8	10	24	683
September	554	11	7	27	599
October	513	12	8	36	569
November	637	15	8	23	683
December	373	6	5	12	396
TOTAL SESSIONS ..	6,276	167	103	261	6,807
Session—half-day, a.m. or p.m.					

Visits Paid by Health Visitors during 1938.
Analysis in Districts.

Name of District	January	February	March	April	May	June	July	August	September	October	November	December	Totals
1. All Saints—North	446	379	810	498	399	335	281	368	276	119	436	224	4,571
2. " —South	357	458	540	341	342	331	394	381	116	284	448	216	4,208
3. Ardwick	539	486	724	544	484	656	593	556	502	430	548	318	6,380
4. Barlow Moor Estate	401	360	358	251	249	172	278	294	236	304	358	219	3,480
5. Bradford—A	778	658	693	470	466	359	432	496	339	316	522	353	5,882
6. " —B	768	594	898	501	250	368	479	263	456	297	441	365	5,680
7. Beswick	422	290	574	273	199	244	262	375	371	366	324	193	3,893
8. Blackley—A	585	517	797	406	442	359	286	331	266	361	525	297	5,154
9. " —B	126	132	171	37	103	75	108	111	61	65	60	49	1,098
10. Cheetham—A	494	514	833	363	273	398	449	195	393	359	481	199	4,951
11. " —B	426	524	649	432	468	375	340	322	286	404	655	363	5,246
12. Collyhurst—South	36	..	..	..	27	14	..	..	24	146	433	258	938
13. " —North	644	608	888	654	719	725	522	691	531	508	376	242	7,108
14. Chorlton	390	378	401	344	381	332	222	235	258	251	393	231	3,816
15. Crumpsall—A	437	361	556	393	492	378	237	412	133	328	553	325	4,605
16. " —B	377	435	546	445	464	346	348	487	221	393	441	311	4,814
17. Didsbury	515	450	398	218	235	301	279	380	165	219	295	217	3,672
18. Gorton—North-east	661	786	577	280	318	346	355	248	265	300	298	181	4,615
19. " —North-west	615	613	733	343	280	346	221	346	215	320	418	256	4,706
20. " —South-east	767	666	1,033	491	418	360	292	593	471	445	422	297	6,255
21. " —South-west	686	756	863	415	382	386	206	483	282	350	620	351	5,780
22. Harpurhey—North	517	483	635	521	409	381	381	314	330	261	433	279	4,944
23. " —South	422	447	588	380	376	386	316	178	217	338	462	268	4,378
24. Levenshulme	900	697	598	381	544	426	383	647	549	639	595	271	6,630
25. Longsight	503	427	421	367	361	373	267	380	351	338	486	256	4,530
26. Medlock Street—East	188	520	761	337	505	509	348	416	120	422	520	288	4,934
26. " —South	605	499	537	252	324	297	142	571	414	356	559	364	4,920
28. Miles Platting—West	537	425	508	161	235	289	313	172	255	226	272	184	3,580
29. " —East	530	521	586	398	434	336	432	487	267	360	485	289	5,125
30. Moston—North	514	644	619	378	535	376	325	529	193	446	545	289	5,393
31. " —South	361	510	660	299	510	311	344	218	280	338	444	263	4,538
32. Moss Side—East	494	485	609	418	707	733	461	754	636	375	491	233	6,396
33. " —West	338	383	643	458	497	402	234	477	440	513	504	321	5,210
34. New Cross—Central	691	523	798	417	539	335	374	486	201	222	..	256	4,586
35. " —South	502	496	340	379	554	369	337	505	148	358	479	256	4,723
36. " —West	478	400	706	341	543	397	297	579	401	364	486	366	5,358
37. Newton Heath—North	604	674	759	420	608	377	361	267	285	431	525	368	5,679
38. " —South	506	323	720	221	558	534	168	379	228	348	408	232	4,425
39. Openshaw	538	513	609	309	520	354	655	592	609	414	322	297	5,732
40. Rusholme	371	449	676	365	375	244	390	482	472	430	507	309	5,070
41. St. George's—East	528	292	625	307	449	482	441	484	386	371	574	325	5,264
42. " —West	521	447	323	358	442	410	394	280	334	372	566	281	4,728
43. St. John's	331	340	375	192	218	105	250	289	102	52	295	125	2,674
44. St. Luke's—North	631	547	628	419	127	536	458	617	396	448	660	383	5,850
45. " —South	584	498	541	291	312	388	358	229	359	269	460	200	4,489
46. St. Mark's—North	417	570	740	507	495	267	339	509	331	424	485	180	5,264
47. " —South	507	436	746	304	359	441	356	627	352	385	617	349	5,479
48. St. Michael's—East	501	550	539	475	346	439	204	456	294	180	341	107	4,432
49. " —West	516	454	714	419	395	393	457	493	112	243	..	307	4,196
50. Wilbraham Estate	561	581	459	275	331	349	398	286	300	436	569	307	4,852
51. Withington—East	463	407	474	310	264	313	184	281	260	124	213	188	3,481
52. " —West	701	568	501	386	289	316	404	379	323	378	566	328	5,139
53. " —Central	457	522	445	319	340	320	311	285	286	219	446	182	4,132
54. Wythenshawe—A	729	702	517	312	583	417	433	428	434	294	447	227	5,523
55. " —B	444	436	502	330	369	356	426	411	495	387	533	263	4,952
56. " —C	656	669	635	352	638	557	607	555	535	499	493	217	6,413
57. " —D	548	540	648	465	675	432	467	754	456	341	404	225	5,955
58. " —E	31	31	40	..	231	..	..	58	..	..	21	5	417
59. " —F .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..
60. District I.	472	559	406	426	291	381	207	619	405	333	315	315	4,729
61. Moss Side—Central .. .. .	..	..	..	..	..	..	..	..	..	46	436	308	790
62. Wythenshawe—G .. .. .	..	..	..	..	..	..	..	..	..	89	317	147	553
63. Ardwick—South .. .. .	..	..	..	..	..	..	..	..	..	101	358	254	713
64. Openshaw—B .. .. .	..	..	..	..	..	..	..	..	..	134	410	208	752
TOTALS	29,687	28,533	34,655	20,948	23,682	21,337	19,806	24,040	18,425	19,869	27,096	15,722	283,780

Worked part-time by Centre Superintendent

Worked part-time by Centre Superintendent
District created for January, 1939.

Districts created October, 1938

TABLE 2—Showing the Work done by the Health Visitors in 1938
and the Four Preceding Years.

Classification of visits	1934	1935	1936	1937	1938
Primary visits to infants	11,880	11,692	11,983	11,593	12,397
Subsequent visits to infants under 1 year ..	49,104	42,646	44,940	43,535	45,546
Subsequent visits to children 1—5 years	131,142	112,865	120,601	113,352	127,036
Other visits <i>re</i> infants and young children ..	1,777	19,631	21,721	22,788	17,722
Still-birth investigations	475	455	470	396	503
„ Subsequent visits .. .. .	..	372	327	379	292
Neo-natal—Subsequent visits .. .. .	..	246	204	208	237
Visits to expectant mothers	2,975	3,358	2,970	3,154	3,434
Measles—Primary visits	11,572	9,531	8,904	6,067	9,741
„ Subsequent visits	19,631	8,746	15,445	5,193	15,965
German measles—Primary visits	389	1,114	820	763	363
„ Subsequent visits	355	1,398	895	896	381
Whooping Cough—Primary visits	1,509	1,542	1,398	1,263	930
„ Subsequent visits	2,439	2,300	2,133	1,840	1,327
Pneumonia—Primary visits	2,089	2,507	2,277	2,348	1,923
„ Subsequent visits	2,639	2,679	2,532	2,487	2,093
Influenza—Primary visits	118	337	120	782	154
„ Subsequent visits	91	227	66	406	102
Verminous cases—Primary visits	522	355	376	323	501
„ Subsequent visits	1,177	693	678	494	1,076
Scabies cases—Primary visits	372	347	435	557	1,038
„ Subsequent visits	688	602	782	959	1,670
Visits <i>re</i> sanitary defects and overcrowding ..	84	112	83	72	401
Visits to children 5—14 years	16	37	22	19	11,301
„ persons 14 years + .. .. .	..	..	..	..	7,234
Special investigations and visits to aged and infirm persons	45	140	153	917	979
Unsuccessful visits and wrong addresses	2,124	1,343	571	559	19,434
Total visits	243,213	224,657	240,906	221,350	283,780
Number of health visitors	60	60	61	61	64
Number of districts worked	56	60	60	60	63
Attendances at child welfare centres	5,180	5,256	5,692	6,041	6,276
Attendances at Diphtheria Immunisation Clinics..	189	228	144	197	167

Deaths under One Year. TABLE 3.

CAUSES OF DEATH—CHILDREN UNDER 12 MONTHS

WARD	Number of health visitors working in the district	Number of deaths of children under 1 year of age	Bronchitis and Pneumonia	Prematurity	Debility and Marasmus	Dystocia	Enteritis	Convulsions	Tuberculosis	Syphilis	Accidental Deaths, Including Want of Attention at Birth	Influenza	Measles	Whooping Cough	Other Causes	Scarlet Fever	Diphtheria
All Saints	2	27	5	6	..	..	2	..	..	..	..	1	..	7	..	..	..
Ardwick ..	2	25	8	2	..	..	4	1	..	..	1	1	..	8	..	..	..
Beswick ..	2	42	11	10	1	..	4	1	..	1	1	..	..	12	..	..	1
Blackley ..	2	15	3	5	1	..	2	..	1	..	1	..	..	2	..	..	..
Bradford	2	44	11	11	2	..	4	2	1	..	2	1	1	9	..	..	..
Cheetham	2	15	2	3	..	..	5	..	..	..	..	..	..	5	..	..	..
Chorlton-cum-Hardy	2	19	1	3	1	..	1	3	..	..	..	1	..	8	..	..	..
*Collegiate	1	19	4	3	2	..	1	1	1	..	..	1	..	3	..	..	..
Collyhurst	2	13	4	4	1	..	..	1	..	..	..	..	..	3	..	..	..
Crumpsall	2	14	4	4	1	..	2	2	..	..	..	..	..	3	..	..	..
Didsbury ..	2	20	2	4	..	1	1	3	..	..	..	1	..	8	..	..	..
Gorton North	2	15	1	2	..	..	4	..	..	..	1	..	..	7	..	..	..
Gorton South	2	20	6	6	1	..	..	1	..	..	..	1	..	5	..	..	..
Harpurhey	2	26	6	6	1	..	5	3	..	..	..	..	..	5	..	..	..
Levenshulme	1	12	1	5	..	1	2	..	..	..	..	..	..	3	..	..	..
Longsight	1	22	3	9	1	..	1	1	..	..	..	..	..	7	..	..	..
Medlock Street	2	27	9	3	..	..	4	1	1	..	1	..	..	7	..	..	1
Miles Platting	2	25	4	3	3	..	3	2	..	..	..	..	..	8	..	..	..
Moston ..	2	23	4	11	2	1	1	..	1	..	..	..	..	4	..	..	..
Moss Side East	1	20	6	5	1	..	2	1	..	1	..	..	..	5	..	..	..
Moss Side West	2	24	1	11	1	..	1	..	..	1	2	1	..	5	..	..	..
New Cross	2	34	4	9	..	..	4	1	..	..	1	..	1	14	..	..	..
Newton Heath	2	11	1	4	..	..	..	..	..	..	..	..	..	6	..	..	..
Openshaw	2	27	4	5	4	2	7	1	..	..	..	1	..	3	..	..	..
Rusholme	1	10	2	3	1	..	..	1	..	..	..	..	..	3	..	..	..
†St. Clement's	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..
St. George's	2	37	10	9	3	1	4	..	..	..	1	..	..	8	..	..	..
St. John's	1	9	1	7	..	..	..	..	..	..	1	..	..	1	..	..	..
St. Luke's	2	36	4	8	2	..	6	..	1	..	1	..	..	14	..	..	..
St. Mark's	2	32	9	8	1	1	3	1	..	..	1	..	1	7	..	..	..
St. Michael's	1	23	2	4	2	1	1	1	1	..	..	4	..	5	..	..	..
Withington	3	27	4	7	..	1	3	..	..	..	..	..	..	12	..	..	..
Wythenshawe	6	45	5	13	2	..	6	2	1	..	..	..	1	15	..	..	..

CAUSES OF DEATH—CHILDREN ONE TO TWO YEARS

WARD	Number of health visitors working in the district	Number of deaths among children 1 to 2 years of age	Bronchitis and Pneumonia	Debility and Marasmus	Enteritis	Convulsions	Tuberculosis	Syphilis	Accidental Deaths	Influenza	Measles	Whooping Cough	Other Causes	Scarlet Fever	Diphtheria
All Saints	2	9	3	..	..	..	1	..	1	..	3	..	1	..	..
Ardwick	2	3	2	..	..	..	..	..	..	..	..	..	1	..	..
Beswick	2	3	2	..	..	..	..	..	..	..	..	..	1	..	..
Blackley	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bradford	2	5	4	..	..	..	1	..	1	..	..	..	..	..	..
Cheetham	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Chorlton-cum-Hardy	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Collegiate	1	5	4	..	1	..	..	..	..	..	..	..	..	..	..
Collyhurst	2	3	..	..	..	..	..	..	..	..	2	..	1	..	..
Crumpsall	2	1	..	..	..	..	..	..	..	..	..	..	1	..	..
Didsbury	2	7	..	..	..	..	1	..	..	..	3	..	3	..	..
Gorton North	2	4	1	..	..	..	1	..	..	..	2	..	..	..	..
Gorton South	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Harpurhey	2	4	4	..	..	..	..	..	..	..	..	..	..	..	..
Levenshulme	1	8	2	..	..	..	2	..	..	..	3	1	..	..	..
Longsight	1	3	2	..	..	..	1	..	..	..	..	..	..	..	..
Medlock	2	7	4	..	..	..	..	..	..	..	2	1	..	..	..
Miles Platting	2	4	..	..	..	..	..	..	..	..	1	..	2	1	..
Moston	2	1	..	..	..	..	..	..	1	..	..	..	..	..	..
Moss Side East	1	2	1	..	..	..	..	..	..	..	..	..	1	..	..
Moss Side West	2	2	1	..	..	..	..	..	..	..	1	..	..	..	..
New Cross	2	5	2	..	..	..	..	..	1	..	..	..	2	..	..
Newton Heath	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Openshaw	2	3	2	..	..	..	..	..	..	..	1	..	..	..	..
Rusholme	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..
†St. Clement's .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. George's	2	8	1	..	..	..	1	..	1	..	3	1	1	..	..
St. John's	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Luke's	2	4	3	..	..	..	1	..	..	..	..	..	..	..	..
St. Mark's	2	4	1	..	1	..	..	..	..	..	1	..	1	..	..
St. Michael's	1	5	1	..	..	..	..	..	..	..	2	..	2	..	..
Withington	3	2	..	..	..	..	1	..	..	..	..	..	1	..	..
Wythenshawe	6	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Total	62	107	45	..	..	2	9	..	5	..	24	3	18	1	..

* A portion of Collegiate is worked by the Health Visitor appointed to visit the Jewish Poor.
 † St. Clement's is worked by H.V. for New Cross.

Deaths—Two to Five Years. TABLE 5.

CAUSES OF DEATH—CHILDREN TWO TO FIVE YEARS

WARD	Number of health visitors working in the district	Number of deaths among children 2 to 5 years of age	Bronchitis and Pneumonia	Debility and Marasmus	Enteritis	Convulsions	Tuberculosis	Syphilis	Accidental Deaths	Influenza	Measles	Whooping Cough	Other Causes	Scarlet Fever	Diphtheria
All Saints ..	2	4	..	..	..	..	..	..	..	..	1	..	1	..	2
Ardwick ..	2	6	1	..	1	..	1	..	1	..	1	..	..	..	1
Beswick ..	2	2	2	..	..	..	..	..	..	..	..	..	2	..	..
Blackley ..	2	5	2	..	..	..	..	..	..	..	..	..	..	..	..
Bradford ..	2	1	1	..	..	..	..	..	..	..	..	..	1	..	..
Cheetham ..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Chorlton-cum-Hardy ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Collegiate ..	1	2	..	..	..	..	..	..	..	..	2	..	..	..	..
Collyhurst ..	2	4	..	..	..	..	..	..	..	..	2	..	1	..	1
Crumpsall ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Didsbury ..	2	3	1	..	..	..	..	..	..	..	1	..	1	..	..
Gorton North ..	2	3	1	..	..	..	..	..	..	..	..	..	2	..	..
Gorton South ..	2	6	..	..	..	..	2	..	..	..	1	..	3	..	..
Harpurhey ..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Levenshulme ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Longsight ..	1	3	2	..	..	..	..	..	..	..	..	..	..	..	1
Medlock Street ..	2	8	3	..	..	..	1	..	..	..	1	..	..	..	3
Miles Platting ..	2	4	..	..	..	..	..	..	..	..	..	..	1	..	..
Moston ..	2	4	1	..	..	..	1	..	..	..	..	..	2	..	..
Moss Side East ..	1	2	..	..	..	..	..	..	..	..	..	..	..	1	..
Moss Side West ..	2	4	3	..	..	..	..	..	..	..	..	..	..	1	..
New Cross ..	2	8	4	..	..	..	1	..	3	..	..	..	..	..	..
Newton Heath ..	2	4	..	..	..	..	..	..	..	..	1	1	1	..	1
Openshaw ..	2	1	..	..	..	..	..	..	..	..	..	..	2	1	..
Rusholme ..	1	3	..	..	..	..	..	..	..	..	..	1	1	..	..
†St. Clement's ..	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..
St. George's ..	2	4	1	..	..	..	..	..	1	..	..	1	..	..	1
St. John's ..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Luke's ..	2	12	7	..	..	..	3	..	2	..	..	1	..	..	1
St. Mark's ..	2	5	..	..	1	..	..	..	2	..	..	..	1	..	1
St. Michael's ..	1	4	..	..	..	..	..	..	2	..	..	..	1	..	..
Withington ..	3	7	1	..	1	..	..	..	2	..	1	..	1	1	..
Wythenshawe ..	6	13	2	..	1	..	1	..	..	..	1	..	3	4	1

INFLUENZA.

232 cases came to the notice of the department by various channels throughout the year and 227 cases occurring in 186 homes were investigated.

The distribution according to sex of the 227 cases of influenza investigated was as follows:—

		<i>Males.</i>	<i>Females.</i>	<i>Totals.</i>
Cases	.. ..	98	129	227
Deaths	.. ..	25	28	53

Influenzal Pneumonia.

In addition to the above figures, 132 cases of influenzal pneumonia were notified and 8 discovered through the death returns; thus the total known cases of influenza for the year was 367 as compared with 1,315 in 1937.

Investigated Cases.

The distribution, according to sex, in the investigated cases of influenzal pneumonia, is therefore:—

		<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Cases	.. ..	189	178	367
Deaths	.. ..	54	39	93

The case-fatality rate was 25·34 per cent. (28·57 per cent. for males and 21·91 per cent. for females).

Influenzal Pneumonia—Sex and Age Groups (Investigated Cases).

<i>Age Group.</i>		<i>Males.</i>	<i>Females.</i>
Under 1 year	.. .. .	2	2
1 to 4 years	.. .. .	10	6
5 „ 9 „	.. .. .	7	5
10 „ 14 „	.. .. .	2	3
15 „ 19 „	.. .. .	2	2
20 „ 24 „	.. .. .	4	2
25 „ 34 „	.. .. .	16	8
35 „ 44 „	.. .. .	15	3
45 „ 54 „	.. .. .	15	2
55 „ 64 „	.. .. .	12	6
65 „ 74 „	.. .. .	4	4
75 +	.. .. .	2	6
		—	—
Totals	.. .. .	91	49

PNEUMONIA.

During 1938 the following notifications of pneumonia were received :—

Primary pneumonia	{	Lobar	1,035	
		Lobular	508	
		Unclassified	6	
			1,549	
Influenzal pneumonia			132	
Secondary pneumonia			103	
			1,784	
			1,784	

The total for the preceding year was 2,279

In addition to the above, however, 257 deaths from pneumonia—248 primary, 8 influenzal, and 1 secondary, all being un-notified cases—were brought to our notice through the death returns: thus the total number of known pneumonia cases for the year was 2,041, as compared with 2,581 for the previous year.

Primary Pneumonia.

Of the 1,797 known cases of primary pneumonia, 1,111 were classified as lobar pneumonia, 666 as lobular pneumonia, and 20 simply as pneumonia. The number of cases which were investigated was 1,711, and of these the case-fatality was 26·28 per cent. for lobar pneumonia, and 43·18 per cent. for lobular pneumonia, as compared with 29·4 per cent. for lobar pneumonia and 45·8 per cent. for lobular pneumonia in 1937.

Secondary Pneumonia.

Secondary pneumonia is not notifiable, but the attention of the department has been directed to 104 cases during the year. Of these all were investigated and were associated with the following diseases :—

Measles	89
Whooping cough	13
Measles and whooping cough	1
Parturition	1
	104
	104

The case-fatality rate was 19·1 per cent., a decrease on the rate for the previous year, when it was 27·3 per cent. With 12 exceptions the patients were all children under 5 years of age.

A table showing the number of known cases of pneumonia, together with the number investigated, is attached.

In connection with all forms of pneumonia the health visitors paid 4,016 visits.

Investigation was attempted in each case, but in 86 instances it was difficult to obtain any definite information. These cases were, therefore, written off as “uninvestigated.”

1,208 cases were transferred to hospital, and of those nursed at home 139 were attended by a nurse supplied by the District Nursing Association, of whom 8 were referred from this section.

Assistance in the form of milk was allowed in 42 necessitous cases, the total amount of milk granted being 588 pints.

Table showing the Number of Primary, Influenzal, and Secondary Pneumonia Cases which have come to the knowledge of the Public Health Department during 1938.

The Table also shows the Number of Notified Cases, the Number of Cases fully Investigated, and the Total Number of Known Cases.

	Known Cases	Cases fully investigated	Cases not fully investigated	Total known Cases of Primary, Influenzal, and Secondary Pneumonia occurring in 1938
<i>(a) Primary Pneumonia—</i>				
Notified Cases	1,549	1,483	66	Primary 1,797
Unnotified Cases (from Death Returns)	248	228	20	
<i>(b) Influenzal Pneumonia—</i>				
Notified Cases	132	132	0	Influenzal 140
Unnotified Cases (from Death Returns)	8	8	0	
<i>(c) Secondary Pneumonia—</i>				
Notified Cases	103	103	0	Secondary 104
Unnotified Cases (from Death Returns)	1	1	0	
Totals	2,041	1,955	86	

ILLEGITIMATE CHILDREN BORN IN 1933.

Illegitimate children are a source of anxiety to all social workers, and an analysis of those born in 1933 who passed out of the care of the Maternity and Child Welfare Department on reaching their fifth year has been made.

533 illegitimate live births and 44 illegitimate still-births were registered in the City in 1933.

129 of these live births afterwards removed from Manchester; 66 other illegitimate children born in 1933 outside the City moved into Manchester. The discrepancy between the registered live births and those analysed arises because several mothers afterwards declared to the health visitor that their children registered as legitimate were really illegitimate.

Altogether 645 illegitimate children (included three sets of twins) born in 1933 were known to the health visitors, and a scrutiny of the health visitors' records has been made to discover the social position of these children at the end of their first five years

The ages of mothers at the birth of these 645 children (including three sets of twins), and the child's place in the family are shown in the following table—331 of these children were males and 314 females:—

Place in Family	Age of Mother at time of Birth							Age Doubt- ful	Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
1st ..	64	129	93	28	19	2	—	60	395
2nd ..	1	22	29	23	23	4	—	6	88
3rd ..	—	5	13	8	10	5	—	1	42
4th ..	—	1	7	17	15	7	—	—	47
5th ..	—	—	2	4	7	7	—	—	20
6th ..	—	—	—	9	5	1	—	—	15
7th ..	—	—	1	4	6	4	—	—	15
8th ..	—	—	—	1	3	1	—	—	5
9th ..	—	—	—	1	3	1	—	—	5
10th ..	—	—	—	—	1	4	—	—	5
11th ..	—	—	—	—	—	2	—	—	2
12th ..	—	—	—	—	—	1	—	—	1
13th ..	—	—	—	—	1	—	—	—	1
14th ..	—	—	—	—	—	—	—	—	—
15th ..	—	—	—	—	—	1	—	—	1
Total ..	65	157	145	95	73	40	—	67	642

Place of Birth.

416 of the births took place in a hospital or other institution, and of these, 27 died in the neo-natal period (26 under 14 days) before discharge from hospital. 223 were born in the mother's own home, and of these, 2 died in the neo-natal period.

Three illegitimate children who removed into the City were born abroad.

532 births were reported to be full-time and 68 were premature births. It was not possible to obtain accurate information about the birth of 45 children who left the City before being seen by the health visitor.

Three mothers died at the time of the child's birth.

Occupation of Mothers at time of Child's Birth.

The occupation of the mothers was sometimes difficult to obtain, but so far as it could be ascertained at the health visitor's first visit was as follows :—

Factories, Warehouses, Laundries	Domestic		Shop Employees of all kinds, and Professional Workers	Hawkers, Canvassers, etc.	Total
	Resident Servants, Cooks, etc.	Non-Resident Barmaids, Waitresses, etc.			
274	154	44	156	14	642

Methods of Feeding.

The method of feeding during the first twelve months was as follows :—

Breast-fed for at least six months (some were in Homes for unmarried mothers)	Mixed feeding from birth	Artificial feeding almost from birth	Died soon after birth. Feeding unknown	Difficult to obtain information	Total
147	35	343	21	99	645

Home Circumstances.

The social circumstances of these illegitimate children are interesting, and an analysis of how the child was supported during the first year, as far as could be ascertained, shows that :—

(1) The largest group (176) were born into households in which there was an irregular union, and therefore a fairly permanent home in which the child had two parents. In some cases, the illegitimacy was not known outside the home. A number of parents had postponed their marriage, others were indifferent to the marriage ceremony, but the largest number were living together in an irregular union because one partner already had a husband or wife, and was living apart.

(2) 147 children were cared for by the maternal grandparents in their own home, the child being brought up with its mother as a member of their family.

(3) 62 were the children of widows or single girls and were grouped as follows :—

(a) 22 were the children of widows who received a widow's pension and Public Assistance or U.A.B. benefit, or had older children working.

(b) 8 were the children of widows who went out to work, the child being day-minded by a relative or neighbour.

(c) 15 were the children of single girls who lived precariously in rooms, or lodgings, on Public Assistance or U.A.B. benefit.

(d) 14 were the children of single girls who lived in rooms or lodgings and had no apparent support except their own earnings.

(e) 2 were the children of single girls who were maintained by the father of the child.

(f) 1 was the child of a single girl who lived with the father of the child and his legal wife.

(4) 58 were cared for in a residential institution with or without the mother, or alternated between an institution and home.

(5) 39 were nursed-out under the Child Life Protection Section of the Public Health Act, 1936, the mother contributing towards the cost of maintaining.

(6) 9 were adopted soon after birth.

(7) 7 were cared for by other relatives of mother while mother went out to work.

Only 88 of these mothers were receiving regular payments under affiliation orders.

Removals into Manchester.

66 illegitimate children removed with their mothers into Manchester, and were found by the health visitors. The reason given by the mothers for their coming was as follows :—

To be in lodgings to get away from home	1
To get work	7
To keep house for a man (the father of the child or another man)	7
To have child cared for by a foster mother	8
To get away from relatives	4
To live with relatives until she found work	18
To marry	3
To have child adopted	1
To live with relatives in order to get away from husband	2
Came from abroad to relatives	2
Because father of child with whom she was living came to work	9
Travelling in a caravan	1
Because she was a widow in receipt of pension and had older children working	1
Came from Ireland	2
Total	66

Deaths of Illegitimate Children.

The following table gives an analysis in age groups and registered cause of death of 86 children who died before reaching the age of five years. In addition, three children were reported to have died outside the City, the age and cause of death being unknown.

These were 53 males and 36 females :—

Cause	One Day	One Week	One month	3 months	6 months	9 months	9 months +	1-2 Years	2 Years	3 Years	4 Years	Total
Prematurity	6	6	3	3	—	—	—	—	—	—	—	18
Dystocia	1	2	—	—	—	—	—	—	—	—	—	3
Pneumonia	—	1	1	5	2	2	2	3	—	1	—	17
Influenza	—	—	—	—	—	—	—	1	—	—	—	1
Convulsions	1	—	—	2	—	2	—	—	—	—	—	5
Enteritis	—	—	—	5	6	1	—	2	—	—	—	14
Tuberculosis	—	—	—	—	—	—	1	1	—	—	—	2
Syphilis	—	—	1	—	—	1	—	—	—	—	—	2
Measles	—	—	—	—	—	—	2	1	1	—	—	4
Whooping Cough..	—	—	—	—	—	1	1	—	—	—	—	2
Accidental Death..	1	—	—	2	—	—	—	—	—	—	—	3
Others	1	1	2	—	1	—	—	—	—	—	—	5
Diphtheria	—	—	—	—	—	—	—	—	1	2	1	4
Marasmus	—	—	2	2	1	1	—	—	—	—	—	6
Total	10	10	9	19	10	8	6	8	2	3	1	86

Of these 89 deaths, 66 were born in a hospital and 23 at home. Of the 66 born in hospital, 27 died in the neo-natal period—26 of these while under 14 days old. This is a neo-natal mortality rate of 43·15, as compared with 33·83 for legitimate neo-natal deaths.

Two of the 23 children born at home died in the first month. 43 other children died under one year, giving a rate mortality of 105·07, as compared with 73·42 for legitimate children.

An investigation of the 43 deaths under one year which occurred in addition to the 29 who died under one month, shows that 11 died without leaving an institution.

Method of Feeding.

The feeding during the first year of 87 of the children who died was investigated, and is shown in the following table :—

Breast-fed for at least six months (some of these were in Homes for unmarried mothers)	Mixed feeding from birth	Artificial entirely from birth	Died soon after birth (no feeding known)
19	3	44	21

Circumstances at the end of 5 Years.

Status of Children.

Allowing for 129 removals out of Manchester and 89 deaths, the health visitors were able to make a survey of the social position of 427 children who reached their fifth birthday.

This was as follows :—

(1) One remained in an institution.

(2) Two were nursed-out under the Child Life Protection Section of the Public Health Act, 1936.

(3) 90 had been absorbed into the maternal grandmother's family, and three were living with other relatives.

(4) 23 had been legally adopted (five by their foster parents).

(5) 138 were living with their parents in a permanent family relationship.

(6) 53 were living rather precariously with mothers who were either widows or single girls living alone in receipt of Public Assistance, or were single girls living on their own earnings, the child being looked after by a landlady while mother went to work.

(7) 44 were with mothers who were widows or women separated from their husbands, or who were single women who had afterwards married, all of whom had other children, either legitimate or illegitimate, thus the child had other brothers or sisters.

(8) One child was with a mother who lived and was maintained by the father of the child and his legal wife.

It was difficult to obtain information about the remaining 27 children.

It will be noted that the children of groups (2), (3), (4), (5), (7), and (8) had some sort of stable family life, while those of groups (1) and (6) lived precariously.

Status of Mother.

(1) 44 unmarried mothers had subsequently married the father of their illegitimate child (or children), and where there had been no impediment to the marriage at the time of the child's birth, the parents were advised to take steps to legitimize the child. It has been possible to ascertain that 5 children were subsequently re-registered as legitimate.

(2) 42 mothers married a man not the father of the child.

(3) 198 were either (a) widows or (b) women living with a man apart from their legal husband, or (c) women living with a man separated from his legal wife.

(4) 290 unmarried mothers were still single when their children reached their fifth birthday, and were living either with their own family or alone.

The reasons for the irregularity of union in the largest group which is included in both (3) and (4), were various. Some postponed marriage, some were waiting for divorce proceedings to be completed, some widows were afraid of losing widow's pension and possibly the children's pension, but the majority were unable to marry because of having another partner living, who either refused to divorce or was in a mental institution, or was indifferent to the marriage being dissolved.

48 unmarried mothers of children born in 1933 later had legitimate children and 100 had illegitimate children.

440 had no subsequent pregnancy, and no information was available about 54 mothers who removed and could not be traced.

The health visitors were asked to consider the position of the illegitimate child at the end of five years, and the place he was able to make for himself in the world.

Conclusions.

On the whole, the circumstances of the children living with two parents, or as part of the grandmother's family, did not differ from that of legitimate children.

The child living with two parents usually had a brother or a sister, and therefore some sort of family life, and the one living as part of the grandmother's family was regarded as the youngest member, with the real mother as an older sister, the child addressing her by her christian name.

Children who were adopted also seemed satisfactory.

The group which gave cause for most anxiety was the one in which the mother was a widow or a single woman living alone, and either trying to work or living in receipt of Public Assistance. This type frequently changed her lodgings for various reasons, and was difficult to trace.

These children lived in insecure unsatisfactory surroundings, cared for by a variety of different people during the mother's absences, and the health visitors experienced great difficulty in maintaining an adequate supervision.

THE VENEREAL DISEASES SCHEME.

This scheme, which was initiated in 1916, has from time to time been developed, and under it a large volume of useful work is being done.

There are in the City six main centres, situated respectively at the Manchester Royal Infirmary, St. Luke's Hospital, Ancoats Hospital, St. Mary's Hospital for Women and Children, Manchester and Salford Hospital for Skin Diseases, and the Manchester Royal Eye Hospital.

Clinics are also held weekly at two of the Maternity and Child Welfare Centres and there is an auxiliary centre in the grounds of Monsall Hospital for the intermediate treatment of women who are referred there from the hospitals, or by their own doctor. There are also two venereal disease wards in Crumpsall Hospital which are linked to although not strictly within the scheme, and afford useful accommodation for in-patient treatment.

The extent and nature of the work done is shown in the tables at the end of this statement. It will be seen that during the year 759 persons suffering from syphilis and 1,478 from gonorrhœa presented themselves for treatment for the first time.

Of the 759 persons suffering from syphilis who are recorded as having attended for the first time, 82 were congenital cases, of which 42 were under treatment at the Royal Eye Hospital. 1,564 persons attended who, on examination, were found not to be suffering from venereal disease, and this indicates a general desire for early diagnosis and treatment on the part of persons who possibly have exposed themselves to infection.

As regards gonorrhœa, 1,221 males and 257 females attended for the first time. These figures compare with 1,130 and 243 respectively in the previous year. It is satisfactory to note that the number of attendances made by gonorrhœal patients continues to increase, but there must be a considerable number of infected persons, especially among females, who never come under treatment at all.

Defaulters.

1,193 persons suffering from venereal disease ceased to attend before the completion of treatment. This gives a defaulter rate of 23·5 per cent. reckoned on the number of patients actually found to be suffering from venereal disease attending the clinics.

The dangerous defaulters, that is, those in the infectious stage, numbered 822, or 68·9 per cent of the total, and it is these patients who are responsible for the spread of much disease. Follow-up letters are sent, but the results, so far as the return for treatment is concerned, are somewhat disappointing.

Although the venereal disease wards at Crumpsall Hospital and the treatment of venereal disease in young children at Booth Hall Hospital are not formally part of the venereal diseases scheme of the city, they are so in practice. In particular there should be mentioned venereal conditions in pregnant women. These are supervised ante-natally and post-natally jointly by the maternity and child welfare centres and Crumpsall Hospital, and the treatment at Crumpsall Hospital is directed towards ensuring a safe confinement and a healthy child.

No action under the Venereal Disease Act, 1917, has been taken during the year. This Act relates mainly to the treatment of persons suffering from venereal disease by unqualified practitioners.

Venereal Disease Wards in Crumpsall Hospital.

Total Admissions.

	Syphilis	Gonorrhœa	Conditions other than Venereal	Total
Males	31	74	12	117
Females	41	22	10	73
Total	72	96	22	190

These figures do not differ markedly from those of last year, and are too small to warrant any conclusions being drawn from them. There is always ample accommodation for these cases: indeed the male ward, which could accommodate 20 patients, has seldom more than six.

The female ward is quite modern, having a sitting room for patients, special baths, labour room, and treatment room combined, also a sterilizing room. The male ward, on the other hand, leaves much to be desired, both in appearance and in equipment.

During the year 34 persons were treated with approved arsenobenzene compounds, 19 being males and 15 females. The number of injections given was 245.

Some of the cases of gonorrhœa are being treated with sulphonamide and with M. & B. 693, but it is too early yet to give an opinion on their merits. It should be recognised that this form of treatment requires special control tests from time to time and it should only be entered upon by experienced practitioners, otherwise more harm than good may result.

The routine course of treatment for syphilis comprises 12 bi-weekly injections of Neokharsivan and an equal number of Bismostab. A second course is commenced after a month's rest.

There were 16 births in this department and no stillbirths. Of these 16 births, 11 babies were born without any sign of specific disease and with negative Wassermanns, while five were syphilitic at birth. The average length of time under treatment at the hospital for these 16 cases was 33 days.

Pathological Examinations.

	Positive	Negative	Doubtful	Total
Wassermann Reaction ..	63	118	4	185
Gonococci	65	85	..	150
Spirochaetes.. .. .	..	1	1	2

Auxiliary Centre for Females at Monsall Hospital.

The number of patients attending at this centre for the first time was 72, of which 61 were referred from other treatment centres and 11 by their own medical attendants. These latter are regarded as new cases. The figure of patients attending for the first time compares with 62 in the previous year and 60 in 1936. Over half the cases were referred from Ancoats Hospital.

The total number of attendances was 2,934, an average of 27 per person. 91 Sitz baths were given during the year.

Early Preventive Treatment, St. Luke's Hospital.

With the approval of the Public Health Committee and the City Council an all day and night Early Preventive Treatment Clinic for males was opened at St. Luke's Hospital on April 1st, 1937, and is still in being at the time this report is written. The establishment of the clinic is made known to the public by posters placed in all public conveniences for males in the city and these posters are renewed from time to time. The treatment is given by a skilled orderly.

(1) *Extent of User.*

The number of persons presenting themselves for treatment during 1938 is given below in four separate quarters for the purpose of comparison :—

January ... 188	April 164	July 249	October 220
February .. 169	May 204	August 226	November... 237
March 182	June 183	September .. 229	December .. 213
<u>539</u>	<u>551</u>	<u>704</u>	<u>670</u>

The total number of persons attending, therefore, was 2,464 during the year. Of this number, 1,582 resided in Manchester and the remainder (882) in other districts.

(2) *Age Groups.*

The ages of those attending were as follows :—

<i>Ages</i>	<i>Persons</i>
15—20	32
20—30	1,362
30—40	855
40 and over	215

} 2,464

(3) *Lapse of time after exposure.*

Men who presented themselves more than six hours after exposure to possible infection were referred to the ordinary venereal disease clinic for observation and treatment if necessary. Of those attending 1,924, or 78 per cent., were within the six hour limit.

(4) *Analysis of hours.*

It may be of interest to note the hours during which persons came for treatment. These times are given hereunder :—

Between 7 a.m. and 12 noon	232 persons
„ 12 noon and 6 p.m.	195 „
„ 6 p.m. and 12 midnight	706 „
„ 12 midnight and 7 a.m.	1,331 „
	2,464

It is significant that no persons receiving this preventive treatment reported subsequently at any of the clinics with established disease.

Edge Lane Hospital.

Arrangements were made in August, 1936, for the occupancy of two beds in the Edge Lane Hospital, Liverpool, an institution which is approved by the Ministry of Health for the reception of young women (and also any child accompanying its mother) suffering from venereal disease. The residents are under the care of a matron and a visiting medical officer and are made thoroughly comfortable and happy during their stay. Girls for admission are chosen with the help of the Secretary of the Manchester Diocesan Association for Preventive and Rescue Work, and during the year four females and one baby have received treatment in the hospital, in-patient days for females numbering 465 and for the baby 281.

Ophthalmia Neonatorum.

In April, 1938, an agreement between the city and the Royal Eye Hospital came into force, whereby infants suffering from ophthalmia neonatorum were treated at that hospital. During the period of such treatment the hospital also receives and maintains the child's mother.

In the nine months in which the scheme has been in operation 21 infants and their mothers have received treatment at the hospital, at a total cost of £117.

Finance.

A statement prepared by the City Treasurer shows that the total net expenditure on the scheme for the year 1937 was as follows:—

A.—Apportionable Expenditure.

	£
Manchester University, Department of Pathology	516
Ancoats Hospital	2,447
Manchester and Salford Hospital for Skin Diseases.. ..	1,170
St. Luke's Hospital	5,002
Manchester Royal Infirmary	3,546
St. Mary's Hospital	1,019
Manchester Royal Eye Hospital	963
Approved arsenobenzene compounds issued by the Medical Officer of Health	186
Auxiliary centre for females	536
	<hr/>
	<u>£15,448</u>

B.—Non-Apportionable Expenditure.

	£
Treatment of Manchester patients by other local authorities	2,029
Edge Lane Hospital, Liverpool	187
Ophthalmia neonatorum treated at Royal Eye Hospital..	117
Maternity and Child Welfare Centres	417
Publicity	36
Printing, stationery, and advertising	89
Administration expenses	398
	<hr/>
	<u>£3,273</u>

Total expenditure for the year £18,721

The total cost per attendance at the six main treatment centres is 3s. 11½d., an increase of ½d. on last year's figure of 3s. 11d. Comparing the six hospitals, the highest cost per attendance is at St. Mary's (6s. 7d.) and the lowest at the Manchester Royal Eye Hospital (2s. 6½d.). If intermediate treatments are included in the calculation the cost per attendance works out at approximately 1s. 9d.

TABLE A.
Summary of Work Done at all the Centres during 1938.

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Venereal		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Number of cases on 1st January, 1938, under treatment or observation	712	692	5	..	596	255	111	163	1424	1110
2. Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	98	62	..	..	66	36	..	4	164	102
3. Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from	427	332	25	..	1221	257	821	743	2494	1332
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other Centres for the same infection, or to have been under observation at other Centres	76	28	..	..	108	80	..	..	184	108
Totals of Items 1, 2, 3, and 4.	1313	1114	30	..	1991	628	932	910	4266	2652
5. Number of cases discharged after completion of treatment and final tests of cure	169	89	15	..	563	140	803	742	1550	971
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from	208	251	4	..	220	139	..	..	432	390
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure	114	59	3	..	146	49	..	1	263	109
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	86	45	..	..	186	32	..	..	272	77
9. Number of cases remaining under treatment or observation on 31st December, 1938	736	670	8	..	876	268	129	167	1749	1105
Totals of Items 5, 6, 7, 8, and 9 (These Totals should agree with those of Items 1, 2, 3, and 4)	1313	1114	30	..	1991	628	932	910	4266	2652
10. Number of cases included in Item 6 which failed to complete one course of treatment..	59	44	..	..	..	..	..	..	59	44
11. Number of attendances:— (a) for individual attention of the medical officers	19564	15123	178	..	22840	5750	2834	2696	45416	23569
(b) for intermediate treatment, e.g., irrigation, dressing	442	..	7100	..	79317	11224	..	46	86859	11270
Total Attendances	20006	15123	7278	..	102157	16974	2834	2742	132275	34839
12. In-patients:— (a) Total number of persons admitted for treatment during the year	27	26	..	..	54	10	6	2	87	38
(b) Aggregate number of "in-patient days" of treatment given	780	961	..	..	574	390	62	6	1416	1357
	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
13. Number of cases of congenital syphilis in Item 3 above, classified according to age periods	12	7	1	5	4	9	19	25	36	46

TABLE B.—Showing the Work done at each of the Venereal Disease Centres during 1938.

PARTICULARS	MANCHESTER ROYAL INFIRMARY				ANCOATS HOSPITAL				HOSPITAL FOR SKIN DISEASES				ST. LUKE'S HOSPITAL				ST. MARY'S HOSPITAL				MANCHESTER ROYAL EYE HOSPITAL				CHILD WELFARE CENTRE, HIGHER ARDWICK				CHILD WELFARE CENTRE, LOWER MOSS LANE				MONSALL AUXILIARY CENTRE FOR FEMALES		TOTALS FOR THE YEAR				GRAND TOTALS—ALL AREAS (Compared with corresponding figures for 1937)	
	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.*	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	G.	Not V.D.	Sy.	S.C.	G.	Not V.D.	1938	1937
New Cases	250	..	484	361	132	5	271	199	124	..	19	173	106	20	617	282	40	..	70	214	78	20	21	..	4	199	8	..	2	116	11†	..	759	25	1478	1564	3826	3518
Total cases treated	971	..	788	429	294	7	393	232	304	..	19	173	263	23	1122	350	158	..	165	286	276	20	129	..	16	231	32	..	8	121	108	..	2427	30	2619	1842	6918	6589
Cases discharged after completion of treatment	141	..	247	363	40	2	140	189	24	173	45	13	238	281	8	..	10	200	18	1	211	1	110	66	..	258	15	703	1545	2521	2268
Cases ceasing to attend Clinic— (A) Before completion of treatment	138	..	169	..	32	2	26	..	60	28	2	80	..	49	..	63	..	84	60	..	8	..	8	..	3	..	10	..	459	4	359	..	822	858
(B) After completion of treatment, but before final tests as to cure	65	..	26	..	43	..	57	..	8	55	3	111	2	..	1	1	173	3	195	1	372	546
(C) Transferred to other Treatment Clinics	48	..	83	..	9	..	19	..	30	..	19	..	24	..	97	..	1	17	2	131	..	218	..	349	410
Attendances at the Out-patient Clinic	13838	..	6376	1514	5369	44	4969	546	4194	..	19	301	4397	134	16302	1130	1339	..	753	1000	4214	67	868	..	98	670	468	..	73	302	34687	178	28590	5530	68985	67060
Intermediate treatment	162	..	17999	13793	280	7100	55636	179	46	2934	442	7100	90541	46	98129	92119
In-patient Days	155	320	..	964	33	1266	35	1741	..	964	68	2773	3139
Doses of approved arsenobenzene compounds given	3932	1386	679	1616	425	1869	491	144	10542	10092

* Gonorrhœa cases transferred to other centres.

† In addition 61 cases were referred from other treatment centres.

TABLE C.
Pathological Work done during 1938.

	SYPHILIS										GONORRHOEA									
	WASSERMANN REACTION				KAHN TEST				SPIROCHÆTES				MICROSCOPICAL EXAMINATION					COMPLEMENT FIXATION TEST		
	Positive	Negative	Doubtful	Total Examined	Positive	Negative	Doubtful	Total Examined	Positive	Negative	Doubtful	Total Examined	Positive	Negative	Doubtful	Total Examined	Positive	Negative	Doubtful	Total Examined
A. Work done at the Public Health Laboratory (University Bacteriological Department):—																				
Manchester Royal Infirmary	645	743	148	1,536	1	..	..	1	..	..	..	..	..	..	..	4	7	1	12
St. Luke's Hospital	142	409	25	576	2	2	..	4	..	..	..	..	..	..	..	5	18	..	23
Hospital for Skin Diseases	293	311	28	632	..	1	..	1	2	..	2	..	..	..	..	..	..	..	..
St. Mary's Hospital	52	230	12	294	..	..	..	..	..	..	..	..	..	..	..	3	8	..	11
Two Maternity and Child Welfare Centres	22	274	7	303	..	..	..	..	..	..	..	..	..	..	..	8	288	1	1
Non-approved Institutions	464	3,287	45	3,796	6	17	2	25	..	..	..	..	..	..	..	7	70	10	55
Medical Practitioners	185	847	24	1,056	1	6	..	7	1	..	..	..	..	..	..	70	260	27	67
Total work done at Public Health Laboratory	1,803	6,101	289	8,193	10	26	2	38	3	..	..	3	85	618	..	703	155	8	213
B. Work done by Hospital Pathologist:—																				
Ancoats Hospital	298	327	45	670	..	..	..	..	1	2	1	4	135	942	4	1,081	..	..	..
Manchester Royal Eye Hospital	165	116	23	304	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Work done by Clinical Pathologist at Clinics:—																				
Manchester Royal Infirmary . . . . .	..	..	..	..	..	..	..	..	43	31	..	74	534	1,536	..	2,070	..	..	..
St. Luke's Hospital . . . . .	..	..	..	..	..	..	..	..	25	12	..	37	652	7,578	220	8,450	..	..	..
St. Mary's Hospital . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	35	502	..	537	..	..	..
Total of A, B, and C	2,266	6,544	357	9,167	10	26	2	38	69	48	1	118	1,441	11,176	224	12,841	155	8	213	

TABLE 1.
SYPHILIS.

Total Number of Persons attending Manchester Clinics suffering from Syphilis and Average Number of Attendances per Individual, 1926-1938.

Year	Number of Patients	Number of Attendances	Average Number of Attendances per Patient
1926-30 (average per annum)	3,538	32,875	9·3
1931-35 (average per annum)	2,670	43,111	16·2
1931	3,021	38,105	12·6
1932	2,645	46,601	17·6
1933	2,603	47,175	18·1
1934	2,494	44,186	17·7
1935	2,586	39,490	15·3
1936	2,709	40,330	14·9
1937	2,441	36,648	15·0
1938	2,427	35,129	14·5

TABLE 2.
GONORRHŒA.

Total Number of Persons attending Manchester Clinics suffering from Gonorrhœa and Average Number of Attendances per Patient, 1926-1938.

Year	Number of Patients	Number of Attendances	Average Number of Attendances per Patient
1926-30 (average per annum)	3,670	43,824	11·9
1931-35 (average per annum)	2,915	74,703	26·0
1931	3,465	58,979	17·0
1932	2,847	76,544	26·7
1933	2,769	76,517	27·6
1934	2,772	76,723	27·7
1935	2,722	84,753	31·1
1936	2,572	88,403	34·4
1937	2,497	110,149	44·1
1938	2,619	119,131	45·5

TABLE 3.
Showing Total Number of Attendances at the Manchester Clinics,
1926-1938.

Year	Number of Attendances
1926-30 (average per annum) ..	83,668
1931-35 (" ") ..	124,325
1931	100,814
1932	128,768
1933	129,629
1934	127,755
1935	131,660
1936	138,067
1937	159,179
1938	167,114

WELFARE OF THE BLIND.

Blind persons over the age of sixteen are dealt with by the Blind Persons Welfare Committee, the Education Committee being responsible for the fees for training.

The routine certification of blind persons is carried out by Dr. H. V. White, and the functions of referee by Dr. H. H. McNabb, both of whom are ophthalmic surgeons in practice in the city.

Financial assistance is granted to necessitous blind persons who are registered as being ordinarily resident within the city. The grants awarded are taken to the homes of the people by the home teachers of the Manchester and Salford Blind Aid Society, who also teach the Braille and Moon methods. The Blind Aid Society also assist them with pastime occupations and look after their comfort and welfare generally. The average number of visits made per month is 2,370.

The technical training of young persons and the employment of blind persons who are not incapable of work are provided for at Henshaw's Institution for the Blind, Old Trafford, and in the workshops in Warwick Road, Old Trafford. Brushes, baskets, mats, knitwear, boot and shoe making and repairing, mattresses, and furniture, etc., are made in the workshops and there is a sales shop in the city (2 and 4, St. Mary's Gate).

The following are the numbers of workers engaged in the workshops :—

Men	.. .. .	94
Women	.. .. .	20

Total	.. .. .	114

Homeworkers are dealt with by Henshaw's Institution, under an approved scheme, and they, as well as workshop employees, receive substantial augmentation of earnings, also other charitable grants.

Homes for the aged men and women and those incapable of work are provided by the two voluntary agencies, as follows :—

One home at Rhyl	For men only	} Provided by Henshaw's Institution
One home at Old Trafford..	For aged men and women	}
One home at Southport ..	Residents of both sexes who are boarded out in the summer months when it is used as a holiday home for blind people	} Provided by the Manchester and Salford Blind Aid Society
Four homes at Pendleton..	For aged men and women	}
One hostel at Old Trafford.	For trainees over 21 years is also provided by Henshaw's Institution.	

All are situated in spacious grounds with healthy surroundings and the occupants receive every comfort and kindness.

During the year 1941 new cases of blindness have been registered ; 117 of these were over 50 years of age.

With reference to the fall in infantile blindness it is most encouraging to observe that, on examination of the register, it is found that out of a total of 1,302 cases the number of blind children under 16 years of age is only 24, of whom three are infants under the age of five years.*

I am indebted to Mr. John W. Turner, Superintendent and Secretary of the Manchester and Salford Blind Aid Society, for the following analysis and summary of the register for the twelve months ended 31st March, 1939, also the classification of cases and causes of blindness.

* In this connection reference should be made by readers to the reports on ophthalmia neonatorum and on the treatment of venereal diseases on pages 270 to 277 and 337 to 345.

Manchester and Salford Blind Aid Society.
City of Manchester.

Summary of Register of Blind Persons for 1938-39.

	Twelve months ending March 31st, 1939	Twelve months ending March 31st, 1938
Number of cases of Register at the commence- ment of the year	1,268	1,244
<i>Add—</i>		
Number of New Cases	141	107
Removals into Area	33	38
Cases re-certified.. .. .	4	2
	1,446	1,391
<i>Deduct—</i>		
Number of deaths	108	93
Removals out of Area	32	24
Cases de-certified	4	6
	144	123
Number of Cases on the Register at the end of the year	1,302	1,268
<i>i.e.,</i>	Males 638	Females 664
		Males 622
		Females 646

Manchester and Salford Blind Aid Society.
City of Manchester.

Registration Statistics of Blind Population.

	At March 31st, 1939	At March 31st, 1938
I. ANALYSIS OF REGISTER.		
<i>Children.</i>		
Under 5 years of age	3	3
5 to 16 years of age—		
At school	19	24
Not at school	2	3
<i>Adults over 16 years of age.</i>		
Under training	32	29
Not training, but trainable	1	1
Trained but unemployed	1	1
Employed at Blind Institutions, or elsewhere	184	194
Unemployable	1,060	1,013
	1,302	1,268
2. AGE PERIODS.		
0—5	3	3
5—16	21	27
16—21	24	20
21—40	195	198
40—50	168	157
50—60	208	202
60—65	108	121
65—70	147	151
70—80	298	267
80—90	117	106
Over 90	13	16
	1,302	1,268

Manchester Blind Aid Society.
City of Manchester.

*Classification of Cases of Blindness Certified and Registered from
the 1st April, 1938, to the 31st March, 1939.*

	Males	Females	Total
New cases from April 1st, 1938, to March 31st, 1939..	67	74	141
Cases re-certified	2	2	4
20 males receiving B.P.S.D.grants } 7 female " B.P.S.D. " } 28 males " B.W.C. " } 93 grants. 38 females " B.W.C. " }			
Number of deaths during the 12 months	50	58	108

New Cases	Ages at which Blindness occurred			Present Age Period		
	Age Period	Males	Females	Total	Males	Females	Total
0—1	1	2	3	1	1	2
1—5 .. .. .	..	1	1	..	1	1
5—10 .. .. .	..	..	..	..	..	..
10—20	2	..	2	2	..	2
20—30	1	1	2	1	1	2
30—40	4	1	5	4	1	5
40—50	6	5	11	6	6	12
50—60	6	9	15	6	8	14
60—70	12	15	27	12	15	27
70—80	24	23	47	24	24	48
Over 80	11	17	28	11	17	28
	67	74	141	67	74	141

Single	17	17	34
Widowed	22	42	64
Married and separated	3	2	5
Married	25	13	38
	67	74	141

Physically and Mentally Defective.

Mental	1	2	3
Deaf	1	3	4
Deaf and dumb	1	..	1
Physical	7	5	12
Mental and Physical	1	..	1
Deaf and Physical	1	1	2
	12	11	23

Causes of Blindness.

Sections	Sub-sections	Males	Females	Total
A. Congenital and Undetermined Causes	1. Congenital, hereditary, and developmental defects ..	4	4	8
	2. Myopic error	1	1	2
	4. Glaucoma, primary	2	4	6
	5. Cataract, primary	29	44	73
	6. Other primary ocular defects, <i>e.g.</i> , primary detachment of retina	4	2	6
	9. Other, <i>e.g.</i> , amblyopia ex anopsia, etc.	1	..	1
B. Infectious and Bacterial	3. Syphilis—(a) Congenital ..	1	4	5
	(b) Acquired ..	5	1	6
	4. Trachoma	2	..	2
	9. Eczematous kerato-conjunctivitis, <i>e.g.</i> , phlyctenular, etc., not definitely tuberculous	1	..	1
C. Traumatic and Chemical	1. Industrial—(a) Trauma ..	1	..	1
	2. Non-Industrial—(a) Trauma	2	..	2
D. General Diseases.	1. Anæmia and other blood diseases	1	..	1
	2. Vascular diseases, including cerebral vascular lesions ..	4	4	8
	5. Intracranial neoplasm.. ..	2	..	2
	6. Diabetes	1	1	2
E. No information obtainable	.. .. .	6	9	15
		67	74	141

Further, 121 cases were examined but found not to be blind within the meaning of the Blind Persons Act, 1920, including 1 removal into the Area.

REFeree SERVICE.

Six cases were submitted to the Referee-Surgeon, with results as follows:—

Decision of ophthalmic surgeon upheld	1
Decision of ophthalmic surgeon reversed, <i>i.e.</i> , "Not blind" to "Blind"	5
(Includes 2 cases not previously on the "Blind" Register.)	

—
6
—

Removals out of Manchester.

Removals into Manchester.

Year	Total	Trainees, Employees, etc.				Non-grant Cases	Grant Cases	Total	Trainees, Employees, etc.				Non-grant Cases	Grant Cases
		Elementary Education	Adult Trainees	Workshop Employees, Home Workers, etc.					Elementary Education	Adult Trainees	Workshop Employees, Home Workers, etc.			
1928-29	7	..	1	2	3	1	17	..	1	2	8	6		
1929-30	13	..	..	1	5	7	24	..	..	4	10	10
(2 years)	20	..	1	3	8	8	41	..	1	6	18	16		
1930-31	15	..	..	3	6	6	28	..	3	3	12	10
1931-32	17	..	..	2	4	11	48	..	2	9	17	20
1932-33	33	..	..	7	10	16	32	..	..	5	12	15
1933-34	27	..	2	10	7	8	40	1	..	13	15	11		
1934-35	47	1	1	9	15	21	27	..	..	3	13	11
1935-36	26	..	..	12	9	5	25	2	1	4	9	9
1936-37	38	..	1	6	9	22	46	1	1	12	11	21		
1937-38	38	..	3	5	13	17	24	..	..	5	13	6
1938-39	33	..	..	6	9	18	32	1	..	5	10	16
(9 years)	274	1	7	60	82	124	302	5	7	59	112	119		

Manchester and Salford Blind Aid Society.

City of Manchester.

Summary of Statistics for the Last Nine Years, 1930-39.

Year ended March 31st	Total on Register	Cases Registered during the year	Cases Re-certified	Deaths	Cases De-certified	Transfers	
						Into Area	Out of Area
1931 ..	1,205	128	..	70	..	15	28
1932 ..	1,220	173	..	120	7	17	48
1933 ..	1,220	124	..	114	11	33	32
1934 ..	1,207	116	..	98	18	27	40
1935 ..	1,252	100	..	67	8	47	27
1936 ..	1,265	116	9	94	19	26	25
1937 ..	1,244	94	6	107	6	38	46
1938 ..	1,268	107	2	93	6	38	24
1939 ..	1,302	141	4	108	4	33	32

PUBLIC HEALTH EDUCATION.

Lectures.

Local societies and organisations of various kinds are circularised from time to time regarding the lectures which are offered free of charge by the Public Health Committee.

The number of lectures given to such bodies was 174, the cost being approximately £150. One guinea and incidental expenses are paid for each lecture, except for those on venereal diseases, the fee for which is two guineas (including expenses). Sixty of the 174 lectures were given by members of the staff of this department, who did not receive any fees.

Below is a statement showing how the 174 lectures were distributed :—

British Red Cross Society	19
Co-operative Guilds—	
Men	7
Women	34
Mixed	6
Church Organisations :—	
Men's Meetings	2
Women's Meetings	13
District Nursing Institution	6
Elementary Day Schools (Parents' Meetings) ..	44
Girls' Clubs	7
L.N.E.R. Ladies' First Aid Class	6
Toc H Branches	11
Women Citizens' Association	12
Women's Conservative Association	3
Other Organisations	4
Total	<u>174</u>

Titles of Lectures and Number of Times Given.

Lecture	Number of Times Given	Number of Persons Attending
1. Change of Life	4	190
2. Diphtheria—Its Dangers and Prevention.. .. .	47	1,030
3. Fear of Disease	1	80
4. First Aid to the Injured	14	836
5. Food and Drink—Their Use and Abuse.. .. .	1	36
6. Food and Food Values	5	129
7. Health and Hygiene	1	25
8. Health and how to keep it	8	489
9. Home Nursing	2	110
*10. Hospitals.. .. .	5	119
11. Housing and Health	1	25
*12. Hygiene and Sanitation	8	444
*13. Infectious Diseases	4	192
14. Interest in Life—Keeping and Losing it	1	90
15. Laughter and Health	4	195
*16. Maternity and Child Welfare	5	158
17. Our Bodies and How We Live.. .. .	3	96
18. Problems of Adolescence	3	115
19. Problem of Clean Milk	1	45
20. Recent Advances in Medical Research	1	35
21. Romance of Medical Science	2	136
*22. Sanitation	9	379
23. Science and Health	1	30
24. Seeing What Isn't There	3	130
*25. Slum Clearance	9	234
26. Story of Preventive Medicine	5	295
27. Sunlight and Health	4	100
28. The Problem of Sex Education	2	88
*29. Tuberculosis	2	80
30. Venereal Diseases.. .. .	5	241
31. What to Tell Our Children about Sex	1	40
32. Wise Middle Age	7	238
*33. Work of the Health Visitor	2	57
*34. Work of the Public Analyst	3	110
Totals	174	6,597
Average Attendance		38

* Special lectures given in connection with the national health campaign to encourage the wider use of the Health Services.

“ Better Health.”

The following articles appeared in the Journal “ Better Health ” during the year :—

1. “ Developments in Physical Education during Recent Years ”—
F. Smith, Physical Education Inspector.
2. “ Measles ”—Miss Calder, Superintendent of Health Visitors.
3. “ Precautions against Whooping Cough ”—Dr. Veitch Clark.
4. “ The First Signs of Common Infection ”—Dr. Sage Sutherland.
5. “ Importance of Sunshine ”—Dr. M. D. Sheridan.
6. “ The Health of the Toddler ”—Dr. N. F. Smith.
7. “ Precautions against Diarrhoea in Infants ”—Dr. Veitch Clark.
8. “ The House Fly ”—Dr. McClure.
9. “ Public Education in Health ”—Dr. Veitch Clark.
10. “ National Rat Week ”—Circular issued by the Public Health,
Department.
11. “ Pure Food ”—Dr. McClure.
12. “ The Common Cold ”—Dr. McClure.

This journal is issued monthly, and the distribution of ten thousand copies is effected through the public free libraries, the maternity and child welfare clinics, the tuberculosis clinic, Baguley Sanatorium, and by a number of large firms throughout the City. A very efficient and inexpensive method of bringing health matters to the notice of the citizens is thus achieved by the circulation of “ Better Health ” each month.

AMBULANCE AND DISINFECTING STATION.

The station is open day and night for the removal of infectious disease cases and for the collection and disinfection of infected bedding.

Staff :—

- Manager.
- Motor mechanic.
- Three clerks.
- Fifteen ambulance officers.
- Five disinfectors.
- Nine labourers.
- One cleansing nurse.
- Two part-time cleansing nurses.
- One woman attendant.

Ambulances :—

There is a fleet of seven ambulances in use for the removal of infectious disease cases, including tuberculosis. During the year under review the number of cases removed to hospital was 5,334. The mileage covered was 81,888·9.

Disinfection.

For the disinfection of bedding, clothing, etc., two steam disinfectors are installed at the station. For articles which cannot be subjected to steam, disinfection by formalin is carried out in a chamber built for the purpose. Three motor bedding vans are used for the removal of infected bedding, clothing, etc., and during the year 1938, 97,129 articles were removed. The mileage covered by the bedding vans was 43,344.

The following table shows the number and type of articles disinfected each month during the year:—

Articles Disinfected at Monsall Ambulance Station.

Month ending 1938	Blankets	Sheets	Pillows	Bolsters	Quilts	Mattresses	Beds	Carpets	Articles of Clothing	Sundry Articles	Total
January ..	1,420	332	1,381	432	838	395	579	4	2,155	512	8,048
February ..	1,451	417	1,376	395	838	514	544	21	3,376	578	9,510
March ..	1,536	394	1,574	458	873	425	631	12	3,144	622	9,669
April	1,107	369	1,450	503	724	362	650	11	3,597	514	9,289
May	1,069	380	1,732	580	651	493	814	10	3,143	637	9,509
June	750	234	1,410	524	471	379	632	8	2,250	639	7,299
July	915	254	1,544	519	502	425	665	4	2,439	471	7,739
August ..	1,689	263	994	325	374	280	435	8	2,204	460	7,039
September .	755	243	1,053	353	533	296	498	4	3,152	420	7,309
October ..	1,044	287	1,151	393	614	342	533	4	2,756	445	7,569
November .	1,008	326	1,381	463	626	375	627	15	2,564	538	7,929
December .	913	262	1,022	320	517	286	437	9	2,044	430	6,249
	13,657	3,761	16,068	5,265	7,561	4,572	7,045	110	32,824	6,266	97,129

Steam Disinfector	94,478	Articles
Formic Aldehyde Chamber .. .	834	Mattresses
“ “	1,817	Books
	<u>97,129</u>	Total

Disinfectors.

Three disinfectors are employed for fumigation of rooms, etc., in which cases of tuberculosis have occurred, and for general disinfection after cases of smallpox and typhus fever.

Garage.

The station garages the ambulances and bedding vans, and, in addition, three motor cars which are owned by the Public Health Committee.

CLEANSING STATION.

The cleansing station at Monsall Road, Newton Heath, is used for the treatment of scabies, cleansing of persons from the clearance areas, and verminous persons.

A cleansing nurse supervises the work and is assisted by two attendants.

The following table shows the number of cases treated during the year :—

Month	Scabies (treatments)	Voluntary cleansings	Compulsory cleansings	Dis- infestation	Special cases	Totals
January	213	7	—	65	—	285
February	203	10	—	116	—	329
March	222	2	5	138	—	367
April	216	4	—	163	—	383
May	145	6	—	171	—	322
June	212	1	—	82	—	295
July	151	8	2	121	—	282
August	112	10	—	143	—	265
September	251	2	—	182	—	435
October	242	2	4	125	—	373
November	230	5	—	96	—	331
December	212	6	—	51	—	269
Totals	2,409	63	11	1,453	—	3,936

REPORT OF THE SANITARY SECTION.

By I. Priestley, F.S.I.A., M.R.San.I., Chief Sanitary Inspector.

Food Supervision.

A staff of three sampling officers whose duty it is to obtain and submit samples for analysis, procured 2,908 samples in 1938.

113 different articles of food and drugs are represented in the samples analysed.

412 of the samples were obtained in an informal manner, a procedure which is useful as it enables the officer to procure samples of foods and drugs where he suspects a breach of the law without revealing his identity to the vendor.

Private purchasers submitted 12 samples for analysis and 2,496 were procured by the sampling officers in accordance with the statutory procedure. 87 samples were found to contravene the Acts and Regulations, equivalent to 2.98 per cent. of the total samples.

Particular attention has been given to milk supplies and 70 samples representing 5.44 per cent., of 1,286 analysed were reported to be adulterated.

A statement covering the past five years follows, from which it will be seen that the food supplies to the City compare favourably with the rest of England.

Year	Percentage of Samples Adulterated			
	Milk		All Food and Drugs	
	Manchester	Average for England	Manchester	Average for England
1934	5.79	7.2	3.14	5.3
1935	5.35	7.4	2.98	5.5
1936	3.73	7.1	1.75	5.3
1937	4.48	7.0	2.77	5.5
1938	5.43	7.7	2.98	5.7

The monthly and quarterly averages of the composition of the milk samples obtained by the sampling officers are shown in the following table. The averages for the past five years are included and show that the quality of milk supplied to Manchester has been maintained consistently above the standard prescribed by the Ministry of Agriculture.

TABLE I.
Composition of Milk Samples.

Month	Number of Samples	Fatty Solids	Non-fatty Solids	Total Solids	Quarter	Number of Samples	Fatty Solids	Non-fatty Solids	Total Solids
		Per cent.	Per cent.	Per cent.			Per cent.	Per cent.	Per cent.
January ..	88	3.48	8.97	12.45	FIRST QUARTER	335	3.36	8.86	12.22
February ..	96	3.41	8.86	12.27					
March	151	3.36	8.86	12.22					
April	81	3.44	8.89	12.33	SECOND QUARTER	336	3.38	8.95	12.33
May	160	3.35	8.97	12.32					
June	95	3.37	8.99	12.36					
July	111	3.41	8.90	12.31	THIRD QUARTER	329	3.48	8.93	12.47
August	98	3.43	8.87	12.30					
September ..	120	3.59	9.01	12.60					
October	120	3.64	9.06	12.70	FOURTH QUARTER	286	3.64	9.02	12.66
November ..	118	3.62	8.99	12.61					
December ..	48	3.72	8.99	12.71					
Average for the year 1938						1,286	3.47	8.95	12.42
„ „ 1937						1,384	3.50	8.92	12.42
„ „ 1936						1,368	3.51	8.97	12.48
„ „ 1935						1,401	3.48	8.93	12.41
„ „ 1934						1,434	3.46	8.92	12.38
Requirements of the Sale of Milk Regulations, 1901							3.0	8.5	11.5

Comparison of adulteration in milk samples taken on Sundays and on week-days :—

	Number taken	Genuine	Adulterated	Percentage adulterated
Samples taken on Sundays	96	89	7	7.29
Samples taken on week-days	1,190	1,140	50	4.20

The sampling officers also procured 672 samples of milk at railway stations and from vehicles entering the city by road for examination for the presence of tubercle bacilli,

Adulterated Samples.

Sixty-eight statutory samples were found to be adulterated or otherwise contravene the Acts and Regulations. In the majority of cases the offences were not so serious as to warrant prosecution and the offenders were cautioned. Summonses were taken out in five cases and resulted in the infliction of penalties, together with costs, which amounted to £15 7s. 6d. (For details, see table No. 7, page 426.)

The informal samples which proved to be unsatisfactory were followed up in all possible cases by statutory samples.

The Public Health (Preservatives in Food) Regulations, 1925-1927.

The provisions of the Regulations have been closely observed and all appropriate samples have been examined for the presence of preservatives by the Public Analyst.

The following samples have been so examined :—

Samples of milk	1,286
Samples of other foodstuffs	412
Samples of foodstuffs specially submitted.. .. .	300

Five samples of sausage were found to contain sulphur dioxide. In each instance the amount of preservative was within the limit allowed by the Regulations, but the requirements regarding levelling and notice declaring the preservative content had not been observed.

In one case the offender was cautioned, and legal proceeding were instituted in the remaining four cases, in which the penalties and costs totalled £9 12s.

Lead and copper, which are prohibited by the regulations, were found in four samples of aerated water. In these cases, which are generally confined to supplies from soda fountains, the presence of lead and copper is usually found to be due to defects in the apparatus.

Metallic contamination was reported to be slight in the samples concerned and the offenders were cautioned by the Medical Officer of Health,

TABLE II.

Showing the Proceedings under the Provisions of the Adulteration of Food and Drugs and the Margarine Acts during the Year 1938.

INFORMAL SAMPLES		ARTICLE	STATUTORY SAMPLES				PROSECUTIONS								
Number Obtained	Number Adulterated		Number Obtained	Number Adulterated	Referred to Town Clerk for legal proceedings	Number cautioned as the Adulteration was only slight	Number summoned before Magistrates	Number Fined	Number ordered to pay Costs only	Dismissed or Withdrawn	Amount of Fines Imposed	Amount of Costs ordered to be Paid			
										£	s.	d.	£	s.	d.
..	..	Almonds, Ground	11	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Arrowroot, Ground	4	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Aniseed, Balsam of .....	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Bacon and Ham	36	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Baking Powder	10	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Barley	30	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Bicarbonate of Soda	12	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Borax	5	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Borax, Glycerine of	1	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Boric Acid	6	..	..	..	..	..	..	..	..	..	..	..	..
*3	1	Bread	21	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Bread and Butter	1	..	..	..	..	..	..	..	..	..	..	..	..
*10	..	Butter	51	1	..	1	..	..	..	..	..	..	..	..	..
4	..	Cakes, Sweet	30	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Camphor, Compound Tincture of..	5	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Camphor, Spirit of	6	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Cascara Extract	9	..	..	..	..	..	..	..	..	..	..	..	..
2	..	Cheese	26	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Cinnamon, Ground	6	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Cocoa	23	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Cocoa Extract .....	..	..	..	..	..	..	..	..	..	..	..	..	..
2	..	Coffee	28	..	..	..	..	..	..	..	..	..	..	..	..
3	..	Coffee Essence .....	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Cornflour	15	..	..	..	..	..	..	..	..	..	..	..	..
4	..	Cream	11	..	..	..	..	..	..	..	..	..	..	..	..
10	..	Cream, Tinned .....	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Cream of Tartar	7	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Custard Powder	22	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Dripping	16	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Distilled Water	1	..	..	..	..	..	..	..	..	..	..	..	..
3	..	Effervescing Salts	3	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Epsom Salts	15	..	..	..	..	..	..	..	..	..	..	..	..
2	..	Fish, Prepared	5	..	..	..	..	..	..	..	..	..	..	..	..
24	..	Fish, Tinned .....	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Flour	26	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Flour, Self Raising	32	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Flowers of Sulphur	7	..	..	..	..	..	..	..	..	..	..	..	..
*4	1	Fruit, Dried	78	..	..	..	..	..	..	..	..	..	..	..	..
25	..	Fruit, Tinned	18	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Gelatine	2	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Gentian, compound Tincture of..	2	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Ginger, Ground	10	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Glaubers Salt	15	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Glycerine	13	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Gregory Powder	4	..	..	..	..	..	..	..	..	..	..	..	..
2	..	Honey .....	..	..	..	..	..	..	..	..	..	..	..	..	..
3	..	Iodine, Tincture of	6	..	..	..	..	..	..	..	..	..	..	..	..
9	..	Jam	25	..	..	..	..	..	..	..	..	..	..	..	..
10	..	Jelly, Table	1	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Lard	38	..	..	..	..	..	..	..	..	..	..	..	..
4	..	Lemon Cheese	4	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Lentils and Peas	39	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Lime Water	2	..	..	..	..	..	..	..	..	..	..	..	..
1	..	Liquorice, Compound Powder of..	4	..	..	..	..	..	..	..	..	..	..	..	..
2	..	Macaroni	15	..	..	..	..	..	..	..	..	..	..	..	..
..	..	Malt Extract	1	..	..	..	..	..	..	..	..	..	..	..	..
136	2	Carried forward	758	1	..	1	..	..	..	..	..	..	..	..	..

* Includes 1 private sample.

TABLE II.—*continued*

Showing the Proceedings under the Provisions of the Adulteration of Food and Drugs and the Margarine Acts during the Year 1938.

INFORMAL SAMPLES		ARTICLE	STATUTORY SAMPLES				PROSECUTIONS					
Number Obtained	Number Adulterated		Number Obtained	Number Adulterated	Referred to Town Clerk for legal proceedings	Number cautioned as the Adulteration was only slight	Number summoned before Magistrates	Number Fined	Number ordered to pay Costs only	Dismissed or Withdrawn	Amount of Fines Imposed	Amount of Costs ordered to be Paid
136	2	Brought Forward	758	1	..	1	..	..	..	..	£ s. d.	£ s. d.
..	..	Margarine	33	..	..	..	..	..	..	..	..	..
5	..	Meat, Prepared	42	..	..	..	..	..	..	..	..	..
10	..	Meat, Tinned.....	4	..	..	..	..	..	..	..	..	..
13	..	Medicated Tablets and Lozenges..	30	..	..	..	..	..	..	..	..	..
1	..	Mince-meat	8	..	..	..	..	..	..	..	..	..
2	..	Mustard	5	..	..	..	..	..	..	..	..	..
+132	13	Milk	1156	57	1	56	1	1	..	..	5 0 0	0 15 6
+28	4	Milk, Condensed	1	1	..	†1	..	..	..	..	..	..
..	..	Oatmeal	21	..	..	..	..	..	..	..	..	..
..	..	Oil Almond	8	..	..	..	..	..	..	..	..	..
..	..	„ Camphorated	10	..	..	..	..	..	..	..	..	..
..	..	„ Castor	12	..	..	..	..	..	..	..	..	..
3	..	„ Cod Liver.....	11	..	..	..	..	..	..	..	..	..
..	..	„ Eucalyptus	1	..	..	..	..	..	..	..	..	..
1	..	„ Neatsfoot .....	..	..	..	..	..	..	..	..	..	..
..	..	„ Olive	17	..	..	..	..	..	..	..	..	..
2	..	„ Paraffin	11	..	..	..	..	..	..	..	..	..
6	..	Ointment, Boric	2	..	..	..	..	..	..	..	..	..
2	..	„ Iodine .....	..	..	..	..	..	..	..	..	..	..
4	..	„ Sulphur .....	..	..	..	..	..	..	..	..	..	..
1	..	„ Wintergreen .....	..	..	..	..	..	..	..	..	..	..
4	..	„ Zinc	1	..	..	..	..	..	..	..	..	..
1	..	Parrish's Chemical Food.....	2	..	..	..	..	..	..	..	..	..
1	..	Pepper	15	..	..	..	..	..	..	..	..	..
11	..	Pickles	6	..	..	..	..	..	..	..	..	..
..	..	Pills, Iron	2	..	..	..	..	..	..	..	..	..
..	..	Quinine,, Ammoniated Tincture of	2	..	..	..	..	..	..	..	..	..
..	..	Rice	31	..	..	..	..	..	..	..	..	..
..	..	Rice, Ground.....	20	..	..	..	..	..	..	..	..	..
..	..	Rhubarb, Compound Tincture of..	6	..	..	..	..	..	..	..	..	..
13	..	Sauces .....	..	..	..	..	..	..	..	..	..	..
1	..	Sausages	24	5	4	1	4	3	1	..	7 0 0	2 2 0
1	..	Spices, ground.....	5	..	..	..	..	..	..	..	..	..
1	..	Suet	7	..	..	..	..	..	..	..	..	..
*2	..	Sugar.....	47	..	..	..	..	..	..	..	..	..
5	..	Sweets	30	..	..	..	..	..	..	..	..	..
..	..	Syrups, medicated	6	..	..	..	..	..	..	..	..	..
..	..	Tapioca	19	..	..	..	..	..	..	..	..	..
..	..	Tartaric Acid	3	..	..	..	..	..	..	..	..	..
†2	..	Tea	46	..	..	..	..	..	..	..	..	..
..	..	Thymol, Glycerine of	1	..	..	..	..	..	..	..	..	..
7	..	Treacle	6	..	..	..	..	..	..	..	..	..
..	..	Tripe	6	..	..	..	..	..	..	..	..	..
3	..	Vegetables, Tinned.....	6	..	..	..	..	..	..	..	..	..
7	..	Vinegar	14	..	..	..	..	..	..	..	..	..
5	..	Beer	8	..	..	..	..	..	..	..	..	..
2	..	Cider .....	..	..	..	..	..	..	..	..	..	..
1	..	Cordials.....	7	..	..	..	..	..	..	..	..	..
8	..	Mineral and Aerated Waters.....	13	4	..	4	..	..	..	..	..	..
..	..	Spirits:—	..	..	..	..	..	..	..	..	..	..
..	..	Brandy	5	..	..	..	..	..	..	..	..	..
..	..	Gin	5	..	..	..	..	..	..	..	..	..
..	..	Rum	5	..	..	..	..	..	..	..	..	..
†2	..	Whiskey	5	..	..	..	..	..	..	..	..	..
1	..	Wines	13	..	..	..	..	..	..	..	..	..
424	19	Total	2496	68	5	63	5	4	1	..	12 0 0	2 17 6

* Includes one private sample.

† Includes two private samples.

‡ This sample was part of a consignment found to be unsound and destroyed.

During August a notification was received from the Port of London Health Authority that 20 barrels of imported apricot pulp, containing excessive preservative, had been consigned to a Manchester firm of jam manufacturers.

Analyses of samples from each barrel indicated, with two exceptions, the presence of sulphur dioxide in amounts exceeding the limit of the Preservatives Regulations.

The pulp was subsequently returned to the London importers with a view to shipment out of the country, and the Port of London Authorities were notified accordingly.

Public Health (Condensed Milk) Regulations, 1923 and 1927.

Public Health (Dried Milk) Regulations, 1923 and 1927.

Of twenty-nine samples of condensed milk which were examined five were found to be partially decomposed.

Information was given to the Markets Department, who administer the Council's powers relating to unsound food.

A Magistrate's order was obtained and the consignment was seized and destroyed.

Artificial Cream Act, 1929.

The number of registered premises at the end of the year was 3, to which 18 visits were paid.

Section 8 Food and Drugs (Adulteration) Act, 1928.

Registration of Factories and Wholesale Premises.

(a) Margarine factories—

Number of premises on register	1
--	---

(b) Wholesale dealers in margarine and margarine cheese—

Number of premises on register, 31st December, 1937	101
" " " registered during 1938 ..	7
" " " discontinued during 1938 ..	7
" " " on register, 31st December, 1938	101

(c) Butter factories —

Number of premises on register	1
" " " discontinued during 1938	1

Seven applications for registration as wholesale dealers in margarine were received during the year.

In each case reports were submitted to the Committee and the premises were registered.

103 visits were paid to registered premises and no offences were reported.

Notifications of changes in registration were sent to the Ministry of Agriculture and Fisheries.

**Food Preparing Premises Registered under the
Manchester Corporation (General Powers) Act, 1930.**

The number of premises on the register at the end of the year was 458, at which the following foods are prepared :—

Sausages	234
Potted meat and brawn	171
Roast and boiled ham	126
Pressed, pickled, cooked, etc., beef and tongue	79
Roast pork	30
Bacon	8
Boiled crabs and lobsters	10
Fish paste	17
Pickled fish	3
Pickled onions	1

1,572 inspections were made and the premises were found generally to be satisfactory. Exceptions occurred in nine instances, when it was found necessary to caution the occupiers with regard to dirty conditions. On subsequent inspections the premises were reported to have been cleansed.

Certificates of registration were transferred in connection with five premises where changes of occupier had occurred.

Food preparation was discontinued in 17 instances and the premises concerned were removed from the register.

Three applications were received in connection with the establishment of new businesses. In two cases the premises were satisfactory and certificates were granted. Registration was granted in the remaining instance after the premises had been made to conform to the requisite standard of fitness.

With regard to one case, which has been outstanding since 1936, the application was withdrawn.

Details of Applications Received.

Nature of Business	Applications for registration	Reported satisfactory and certificates granted	Registered after necessary requirements fulfilled	Registration refused	Adjourned	Withdrawn
Roast and Boiled Ham	2	1	1	—	—	—
Sausage	1	1	—	—	—	—
Totals	3	2	1	—	—	—

Bakehouses.

There are 570 bakehouses in the city, of which 562 are above ground and 8 underground. Of the basement bakehouses, 6 are in use.

With a view to securing clean and hygienic conditions in bakehouses strict supervision has been maintained during the year, involving 3,724 inspections. Three prosecutions in connection with dirty bakehouses were instituted, the offenders being fined a total of £7.

Number of inspections during 1938	3,724
Number on register at end of 1937.. .. .	599
Number registered during the year	7
Number removed from register during the year (including 15 basement premises)	36
Number on register at end of 1938.. .. .	570
Sanitary defects remedied after caution (including 1 from 1937)	8
Notices served for sanitary defects	9
Notices complied with (sanitary defects) (including 1 from 1937)	10
Dirty conditions remedied after caution (including 2 from 1937)	56
Applications for registration of new bakehouses	13
Applications approved subject to the fulfilment of the requirements of the Medical Officer of Health.. ..	10
Applications refused on the ground of unfitness	1
Applications withdrawn	2
Changes of occupier recorded	18

In accordance with arrangements with the Town Planning and Buildings Department, plans of three bakehouses were submitted to the Medical Officer of Health and were recommended for approval, subject to the fulfilment of certain requirements.

Sale of Bread.

The inspection of shops where bread is sold by retail has been continued during the year, in order to ascertain whether this commodity is sold under clean and generally satisfactory conditions.

227 shops were visited, as follows :—

Selling wrapped bread	150
Selling unwrapped bread	27
Selling both wrapped and unwrapped bread	50

These figures indicate that at 66 per cent. of the shops visited all bread is sold wrapped ; at 22 per cent. of the shops both wrapped and unwrapped bread is sold ; and at only 12 per cent. of the shops is all bread sold unwrapped.

In all instances the conditions were reported to be satisfactory.

Restaurant and Cafe Kitchens.

At the 31st December, 1938, there were 268 restaurant and cafe kitchens recorded in the department.

993 inspections were made during the year by sanitary inspectors of the department.

Whilst the premises were found generally to be clean and satisfactory, it was necessary to caution the occupiers with regard to dirty conditions in five instances and defective water-closet accommodation in one instance.

On subsequent inspection all these conditions were reported to have been remedied satisfactorily.

Butchers' Shops and Bacon Stores.

The Public Health (Meat) Regulations 1924 and 1935 require meat to be protected from contamination by dirt, flies, etc.

479 inspections of butchers' shops and bacon stores were made during the year with a view to securing compliance with these requirements.

Whilst the premises were found to be satisfactory generally, in 15 instances it was necessary for the inspectors to caution the occupiers with regard to defects or dirty conditions.

These cautions resulted in improvement except in one instance where dirty conditions continued. Legal proceedings were instituted in this case and the offender was fined £2.

Sale of Food at Open Markets.

There are 10 open sites in the City where market stalls are situate in connection with the sale of food.

65 visits were made during the year to these markets for the purposes of the byelaws made under Section 70 of the Manchester Corporation Act, 1934, which contain provisions with respect to the sale of food on open sites.

MILK CONTROL SECTION.

The work of this section of the Public Health Department is administered under the following Acts and Orders :—

Milk and Dairies (Consolidation) Act, 1915 ..	} Dealing with milk and milk products
Milk and Dairies (Amendment) Act, 1922 ..	
Milk and Dairies Orders, 1926 and 1938 ..	
Milk (Special Designations) Orders, 1936 and 1938	
Manchester Corporation (General Powers) Act, 1899, section 18	} Dealing with ice cream
Manchester Corporation (General Powers) Act, 1930, section 32 (1) (b)	

The above-named Acts and Orders dealing with milk and milk products have now been amended and consolidated by the new Food and Drugs Act, 1938, which will come into operation on 1st October, 1939.

Sections 3 and 4 and the 1st Schedule of the Milk and Dairies (Consolidation) Act, 1915, have been repealed, and the inspection of animals is now carried out by the State Veterinary Service which came into operation on 1st April, 1938. It is still the duty of the Council, however, to enforce the provisions for the prohibition of sale of tuberculous milk or milk of cows suffering from tuberculosis and other diseases as set out in Part I. of the 1st Schedule of the Act.

Authorised officers of the Council are given powers of sampling of milk, ice cream, and other milk products, for analysis or for bacteriological or other examination, and the Act provides additional powers for taking milk samples in the area of another authority by consent.

It will also be the duty of the Council to enforce the provisions and issue licences in connection with special designated milks both for producers and non-producers.

Registration of premises used in connection with the manufacture and sale of ice cream can, as before, be dealt with under the Manchester Corporation (General Powers) Act, 1930, or section 14 of the new Food and Drugs Act, 1938, can be adopted, which will give the Council additional powers.

It is gratifying to note that, with the exception possibly of tuberculosis, no infectious disease definitely attributable to milk has arisen during the year. There have, however, been two notified cases of undulant fever—Br. abortus (Bang.) in which the patient's raw milk was the suspected source of infection. Bacteriological examination of samples of milk taken at the supplying farms showed the presence of Br. abortus, and the farms were inspected by the Ministry of Agriculture's Veterinary Inspectors who reported that one cow concerned had recently died and that another had been sold.

The work carried out by the section is summarised in tabular form at the conclusion of this report, and it will be seen that similar measures have been taken as in the past to supervise the milk supply of the City.

City Farms.

There has been a reduction in the number of farm premises in the City from 56 to 51 with a corresponding decrease of cattle accommodation from 1,450 to 1,200. This reduction of farms is due to the development of land for housing in the Wythenshawe area.

Bulk sampling of the milk from each farm has been carried out as in previous years, in addition to periodical examination of the cattle, by the Ministry of Agriculture's Veterinary Inspectors, and as a result 8 cows suffering from tuberculosis of the udder were discovered and slaughtered under the Tuberculosis Order.

There is one producer of "Tuberculin Tested" milk in the City, and there are ten producers of "Accredited" milk. The necessary quarterly examinations of the herds have been carried out by the Ministry's Veterinary Inspectors, and samples of the milk have also been taken quarterly by the Milk Control Inspectors for bacteriological examination. The conditions of production at these farms have been generally satisfactory.

Country Farms.

The examination of milk supplied to the City from farms outside the boundary was carried out as in previous years. Bulk samples from 935 such farms were examined by the biological test for tubercle bacilli, and 103 proved positive, giving an incidence rate of 11.02 per cent. This rate, although 0.95 per cent. higher than that for last year, is 0.23 per cent. lower than that for the past 37 years.

A disturbing feature during the year was the fact that a sample of milk from a "Tuberculin Tested" herd and supplied to a milk bar in the City was proved to contain *b. tuberculosis* by biological test. On notifying this to the County Medical Officer of Health, in whose area the farm was situated, it was ascertained that the farmer concerned obtained milk from 11 other "Tuberculin Tested" herds in the neighbourhood and bulked it all together. Investigations made at each of these farms by the Ministry's Veterinary Inspectors failed to discover any clinical case of tuberculosis, but on taking group and then individual samples of milk from these herds for biological examination it was found that the milk from one cow showed the presence of tubercle bacilli.

City Dairies and Milkshops.

The Milk Control Inspectors have paid 4,603 visits to farm premises, dairies, and milkshops during the year. Generally speaking, the standard of cleanliness has been maintained at a high level. The number of dairies and shops registered for the sale of loose milk is 958, but the shops selling bottled milk only continue to increase. It is estimated that there are 10,000 shops selling bottled milk only.

It was found necessary to institute legal proceedings in respect of only one contravention of the Milk and Dairies Acts and Orders. Particulars of this prosecution is given in Table IV. A conviction was obtained in this case.

The working and testing of the pasteurizing plants at the dairies licensed for this purpose have been carried out once monthly by the Milk Control Inspectors in addition to their routine visits.

Ice Cream.

The number of premises registered for the manufacture and/or sale of ice cream is 667 against 646 in 1937. Registrations for manufacture and sale of ice cream during the year have been mainly for totally-enclosed automatic cabinet refrigerators, both for loose and wrapped ice cream, and the open "old fashioned" ice tub is rapidly disappearing.

It is satisfactory to note that there have been no cases of infection reported to the department during the year which could be traced to ice cream consumption.

1,440 visits of inspection have been made, and the general standard of cleanliness has been good. Two prosecutions were instituted during the year, and a number of warnings was required (see Table VI.).

Manchester Corporation Hospitals' Milk Supply.

The supply of pasteurized milk to certain Corporation hospitals and institutions has been strictly supervised and the results have been entirely satisfactory. Regular sampling has shown the milk to comply with the legal standard and in no case has there been tuberculous infection.

The raw milk supplied to Monsall Hospital and Rose Hill Convalescent Home—which is supplied from an "Accredited" farm—has also been sampled frequently, and on one occasion was found to be infected with *b. tuberculosis*. The milk, therefore, was pasteurized for a period until the source of infection had been removed. In all other respects the supply has been satisfactory.

The herd at the Langho Colony farms, from which milk is supplied to the Langho Epileptic Colony and Booth Hall Hospital, has been subjected to monthly veterinary examination. Samples of the milk examined monthly for the presence of tubercle bacilli have given negative results throughout the entire year. The bacterial count of the samples was, with one exception, uniformly low.

The herd at the Abergele farm, from which milk is supplied to the Sanatorium, has been examined frequently during the year by a veterinary officer. The quality and bacterial content of the milk have maintained a very high standard. One cow suffering from tuberculosis of the udder was dealt with under the Tuberculosis Order.

General.

In connection with the Council's scheme for free and assisted milk supply dealt with at maternity and child welfare centres and the Tuberculosis Offices, and also the supply of milk to school-children under the Milk-in-schools Scheme of the Milk Marketing Board, assistance has been given by the Milk Control Section in maintaining the standard of purity and quality, and complaints have been investigated and rectified.

The milk supplied has been "Special Designated" milk, controlled by the conditions and standards laid down by the Milk (Special Designations) Orders, 1936/38. Samples taken for examination have on the whole, been very satisfactory.

A scheme has also been set up by some dairymen to provide milk, in similar bottles to the school milk, for industrial workers at works and offices at a standard price all the year round.

The milk bars, which first became noticeable in the City in 1936, have considerably increased. A large number of these milk bars are registered to sell milk for consumption off the premises, the remainder being chiefly in cafes and so exempt from registration.

Milk Bars in the City of Manchester, 1938.

Total number of milk bars registered	.. .. .	21
Number selling raw milk (undesignated)	.. .. .	7
Number selling T.T. milk	.. .. .	1
Number selling pasteurized milk	.. .. .	13
Number with refrigerated milk storage units	.. .. .	21
Number with electric mixers	.. .. .	21
Number with hot milk soup section	.. .. .	14
Number with suitable washing-up and sterilization equipment	.. .. .	21
Number of portable milk bar canteens	.. .. .	1

At the Manchester Centenary Exhibition held in the City Hall, Manchester, in May, the stall organised by the Milk Control Section was visited by a large number of school children and members of the public. Advantage was taken to demonstrate cleanliness in the production and distribution of milk and ice cream.

APPENDIX.

TABLE I.

Particulars of Visits to City Farms.

Total number of farms in the city accommodation for 1,200 cows.	51
Number of visits paid to farms by the Ministry of Agriculture's Veterinary Inspectors	106
Number of cows examined	2,314
„ „ suffering from tuberculosis of the udder ..	8

TABLE II.

Particulars of Milk Samples.

<i>Samples Examined for Tubercle Bacilli.</i>	
Collected by Food and Drugs Inspectors at—	
(a) Railway stations .. .. .	..
(b) Vehicles entering the city by road	672
Collected by Milk Control Inspectors at—	
(a) Hospitals and institutions	64
(b) City dairies, milkshops, and milk bars	136
(c) Vehicles	443
(d) Railway stations	1
(e) City farms	75
(f) Schools	14
Number of samples taken at Abergele Sanatorium Farm ..	48
TOTAL	1,453
<i>Samples Examined for Chemical Analysis, Bacterial Count, Bacillus Coli, etc.</i>	
Collected by Milk Control Inspectors at hospitals, dairies, vehicles, schools, etc.	856

TABLE III.
Analysis of Farms Tested for Tubercle Bacilli in Milk
during the Year.

County	No of farmers represented by samples of milk	No. of farmers sending tuberculous milk	Percentage
Cheshire	512	66	12·89
Lancashire	142	13	9·15
Derbyshire	125	5	4·00
Staffordshire	130	14	10·77
Yorkshire	24	4	16·67
Roxburghshire	1	..	..
Montgomeryshire	1	1	..
	935	103	11·02

TABLE IV.
The Milk and Dairies (Consolidation) Act, 1915,
The Milk and Dairies (Amendment) Act, 1922, and Orders.

Number of registered farm premises and dairies—December 31st, 1938	143
„ registered milkshops—December 31st, 1938 ..	815
„ of persons registered for the sale of milk in properly covered bottles only—December 31st, 1938	354
„ visits to farms, dairies, milkshops, etc., by Milk Control Inspectors	4,603
„ applications for registration approved	116
„ applications for registration refused	1
„ persons removed from register by resolution of City Council	1
„ milk vessels found uncovered	23
„ milk vessels found dirty	3
„ milkshops found dirty	12
„ premises found in disrepair	4
„ premises with unsatisfactory washing facilities ..	4
„ milk conveyances found dirty	4
„ milk conveyances without name and address ..	12
„ milk purveyors found bottling milk in the street..	1
„ sites inspected for new dairies	4
„ persons warned for opening bottles of milk ..	7
„ prosecutions taken in respect of bottling milk in street	1

TABLE VIII.
Analysis of Samples of Milk Tested for Tubercle Bacilli.

Source of Samples		Primary and subsequent	Control	Total	Positive results
By Food and Drugs Inspectors	Railway stations.. .. .	..	..	..	..
	Vehicles	654	18	672	*70
By Milk Control Inspectors	Hospitals and institutions..	63	1	64	1
	Vehicles, city dairies, railway stations, and schools ..	581	13	594	†34
	City farms—group	69	6	75	13
By Medical Superintendent	Abergele Sanatorium } individual	8	..	8	1
	farm } mixed ..	40	..	40	‡3
Totals		1,417	36	1,453	122

* Includes 1 control sample.

† Includes 1 control sample.

‡ Includes 2 group samples.

TABLE IX.
Graded and Ungraded Milks—Tuberculosis Rate.

" TUBERCULIN TESTED "			" ACCREDITED "			PASTEURIZED		
No. of samples taken	Positive T.B. results	Percentage	No. of samples taken	Positive T.B. results	Percentage	No. of samples taken	Positive T.B. results	Percentage
41	1	2.44	92	13	14.13	230	..	..

	GRADED MILKS (excluding " Pasteurized ")	PASTEURIZED	UNGRADED MILK	TOTAL MILKS
Total Number of Samples taken ..	133	230	1,090	1,453
Positive T.B. results	14	..	108	122
Percentage	10.53	..	9.91	8.40

N.B.—If the " PASTEURIZED " figure is included with that of " GRADED MILKS " the percentage would decrease to 3.86.

It should be pointed out that the tuberculosis rate for "Accredited" milk given above is apt to be rather misleading. It does not represent truly the amount of tubercle bacilli found in this grade of milk, in as much as a large quantity of milk from "Accredited" herds is sold as ordinary ungraded milk and is, therefore, included in the "Ungraded Milk" figure.

Housing Activities.

The number of new houses completed in the City during 1938 was 3,909, of which 2,221 have been erected by the local authority and 1,688 by private enterprise.

Occupied houses (excluding tenement dwellings) on the Corporation Estates at the end of the year numbered 28,115. This figure includes 150 cottages built over 24 years ago at Blackley.

There were in addition, 1155 occupied flats.

The number of tenement dwellings owned by the Corporation is 803.

House Inspection.

Housing Act, 1936, and Housing Consolidated Regulations.

Systematic inspection of dwelling-houses under the above Act and Regulations has been continued during the year.

5,648 houses were inspected and have been classified as follows:—

Unfit for habitation	5,436
Minor defects	80
No defects recorded	132

Details of these inspections are given in Tables A, B, and C (see pages 381 to 383).

Public Health and Local Acts.

Primary inspections have been made at 15,082 houses, principally as a result of complaints or investigation of infectious disease.

The defects found have been dealt with as follows:—

(a) At 4,190 houses defects have been remedied as a result of the service of preliminary notices.

(b) At 4,673 houses the defects have been dealt with by the service of statutory notices under the Public Health or local Acts and remedy effected by the owners in 2,981 cases and by the local authority in default in 260 cases.

Total Number of House Inspections.

The total number of house inspections (including revisits) during the year for all purposes was 116,018.

A summarized analysis of these figures is to be found in Table D page 384 and Table 4, page 423.

Defective houses on list for consideration of Committee.

The reconditioning of many thousands of houses in the City is impracticable. These houses will be dealt with eventually under the Housing Act, 1936.

Defects of an urgent character arise at such houses, however, which require immediate attention, and preliminary notices or intimations were sent to the owners with regard to such urgent defects at 3,432 houses, and the work was effected at 2,146 houses.

Where preliminary notices were not complied with, statutory notices were served.

Cleansing of Houses and Appurtenances.

Dirty or verminous conditions in dwelling-houses are dealt with by the issue of verbal cautions or the service of notices on the tenants.

In 56 instances houses were cleansed as a result of verbal cautions by the inspectors.

Cleansing was effected at 16 dwelling-houses where preliminary notices had been served and 6 statutory notices were complied with.

It was not found necessary to institute any legal proceedings with regard to failure to cleanse dirty houses.

Arrangements have been made by the Public Health Committee whereby poor persons can obtain lime for limewashing free, on the certificate of the district inspector or health visitor, and may borrow brushes for the purpose without charge.

During the year, 1,285 certificates were issued, 1,591 brushes were loaned and 18,774 lbs. of lime were distributed.

Houses Let-in-Lodgings.

These premises, which include the type known as "farmed-out" houses, have continued to receive close attention to ensure that the living conditions are maintained as satisfactory as possible and that the byelaws which control them are being observed.

The new draft byelaws, to which reference has been made in previous annual reports, have been confirmed by the Minister of Health, who has directed that they shall come into operation on the 1st April, 1939.

At the end of 1938, the number of registered houses let in lodgings was 1,179, including 417 "farmed-out" houses.

During the year, 11,288 inspections were made.

In 120 instances, infringements of the byelaws have been remedied as a result of verbal cautions by the inspectors.

It was found necessary to serve notices in the following cases :—

Requirements	Preliminary Notices		Statutory Notices	
	Served	Complied with	Served	* Complied with
To furnish particulars preliminary to registration	—	—	160	160
To provide water supply and sinks..	21	13	8	8
To cleanse walls and ceilings ("farmed" houses)	178	106	53	48
To provide ventilation to rooms, staircases, or passages.. .. .	8	7	1	1
To provide washing accommodation	1	1	—	2
To provide proper flushing arrangements to watercloset	1	1	—	—
To abate overcrowding	—	—	1	1
To inscribe name and address of the Medical Officer of Health and/or landlord and/or "permitted number" in the rent book.. .. .	17	13	—	—
Totals	226	141	223	220

* Includes some notices served in 1937.

Fourteen offences against the byelaws were reported to the Committee.

Four of these cases related to failure to furnish particulars preliminary to registration, and four cases concerned non-compliance with notices to provide water supply and sinks. In all these instances the department's requirements were fulfilled before the institution of further proceedings.

The remaining six cases related to dirty walls, floors, or bedding.

In two instances the necessary work was done before the issue of summons, whilst the other four offenders were summoned before the magistrates and fined an aggregate of £3 10s.

Municipal Hostels.

Walton House Municipal Hostel for Men.

This hostel was opened in 1899 and is situated in Harrison Street, Ancoats.

There continues to be a steady demand for the accommodation provided.

There are 465 cubicles, each containing a comfortable bed with an ample supply of bedding and well ventilated to the external air. Smoke, Reading, and Dining rooms are situated on the ground floor. The dining room floor has recently been relaid with wood blocks. The well-stocked shop and kitchen adjoin the dining room, from which food, etc., and prepared meals can be obtained at moderate charges.

The average number of men accommodated per night during the year ended 31st March, 1939, was 441.

The charges are 1s. per night or 6s. 6d. per week.

Ashton House Municipal Hostel for Women.

This hostel was opened in 1910 and is situated in Corporation Street.

The facilities are similar to those at the men's hostel.

There is accommodation for 210 women, but the average number of beds occupied per night during the year ended 31st March, 1939, was 92, as compared with 95 for the corresponding period last year.

Ashton House continues to maintain a good reputation amongst the domestic and hotel workers and business women who have availed themselves of its hospitality. The charges are 10d. and 1s. per night or 5s. and 6s. if booked weekly.

At both hostels a kitchen with gas cookers is available without charge to the residents to prepare their own meals; also lavatories and baths are provided and suitable means to wash their own clothing. Men have their laundering done by the establishment at a moderate tariff.

Caravan Dwellings.

430 inspections of caravans and their sites were made during 1938 with a view to the prevention of nuisance and compliance with the provisions of the byelaws made under section 9 of the Housing of the Working Classes Act, 1885.

The existence of eight new caravans was reported during 1938, and in each case the occupiers were served with copies of the byelaws.

Two caravans were reported to have removed, and the total number of such structures in the City at the 31st December was 98.

Section 18 of the Manchester Corporation Act, 1891, which is administered by the Town Planning and Buildings Committee, enables proceedings to be taken in connection with the unauthorised erection of structures without licence from the Corporation.

Rent Restrictions Acts.

Applications were received from three tenants for certificates that the houses in their occupation were not in a reasonable state of repair.

Inspections were made and a certificate issued in each case, after submission of reports to the Public Health Committee.

Work done by the District Sanitary Inspectors in connection with Infectious Disease.

Infectious cases investigated	..	..	..	..	..	..	..	..	4,540
Primary visits to infected houses	..	..	..	..	..	..	..	..	4,486
Subsequent visits to infected houses	..	..	..	..	..	..	..	..	2,093
Inspections <i>re</i> tuberculosis	..	..	..	..	..	..	..	..	11,093
Other visits <i>re</i> tuberculosis	..	..	..	..	..	..	..	..	5,044
Visits to contacts :—									
Smallpox	..	..	..	..	..	..	..	..	28
Scarlet fever	..	..	..	..	..	..	..	..	199
Diphtheria	..	..	..	..	..	..	..	..	120
Other contacts	..	..	..	..	..	..	..	..	78
								—	425
Rooms fumigated by Inspectors	..	..	..	..	..	..	..	..	3,582
Hospital wards fumigated by Inspectors	..	..	..	..	..	..	..	..	58
Class rooms fumigated by Inspectors	..	..	..	..	..	..	..	..	15
Rooms disinfected by Corporation workmen	..	..	..	..	..	..	..	..	1,373
Rooms disinfected by tenants	..	..	..	..	..	..	..	..	3,467

Tables showing Results of House-to-House Inspections.

TABLE A.

Number of Houses Inspected	Number of Rooms per House								Part Business Premises
	1	2	3	4	5	6	7	Over 7	
5,648	..	36	642	2,727	1,349	490	276	128	357

TABLE B.

WARD	Number of Houses Inspected	Want of Cleanliness	Inadequate Light	Inadequate Ventilation	Damp	Without proper accommodation for		Disrepair	Bad Arrangement	CLASSIFICATION				
						Food Storage	Domestic Washing			No Defects Recorded	Minor Defects	Remediable without reconstruction	Irremediable without reconstruction	
														Unfit
All Saints	229	8	154	197	81	179	46	184	229	—	—	—	1	228
Ardwick	282	—	2	5	170	216	68	268	104	—	—	—	177	104
Beswick	96	—	57	57	60	96	28	77	58	—	—	—	38	58
Blackley	328	—	103	104	143	311	45	315	162	—	—	—	208	116
Bradford	534	2	57	128	235	533	76	534	237	—	—	—	297	237
Cheetham	466	—	54	131	143	459	91	336	121	—	—	—	342	121
Chorlton-cum-Hardy	206	—	4	18	75	115	23	189	127	—	—	—	205	—
Collyhurst	155	—	—	1	8	77	25	30	—	—	—	—	103	—
Gorton North	52	—	—	1	31	52	5	52	87	—	—	—	52	—
Gorton South	550	1	9	68	242	550	22	464	84	—	—	—	522	28
Harpurhey	370	—	8	8	17	355	5	226	84	—	—	—	275	84
Levenshulme	231	—	—	—	89	186	9	180	—	—	—	—	186	—
Longsight	57	—	2	—	4	57	2	39	—	—	—	—	57	—
Miles Platting	199	—	—	—	36	199	28	195	—	—	—	—	199	—
Moss Side East	424	2	224	224	218	416	41	374	224	—	—	—	247	176
Moss Side West	131	—	87	62	77	124	10	130	123	—	—	—	82	49
Moston	243	—	—	—	35	142	4	77	—	—	—	—	158	—
Newton Heath	90	1	22	2	45	86	9	90	41	—	—	—	56	34
Openshaw	199	—	—	—	71	199	—	199	—	—	—	—	199	—
Rusholme	327	—	72	74	114	265	59	275	113	—	—	—	220	107
St. George's	100	—	99	99	98	100	10	100	100	—	—	—	—	100
St. Luke's	225	3	113	95	38	205	17	147	173	—	—	—	53	170
St. Mark's	116	—	40	57	55	116	16	116	116	—	—	—	—	116
Wythenshawe	38	—	11	25	23	17	1	32	—	—	—	—	23	8
Totals	5,648	17	1,118	1,356	2,108	5,055	640	4,629	2,099	132	80	3,700	1,736	

TABLE C.

Number of Rooms per House	Number of Individuals per House			Number of Individuals per Room			Number of Children under 10 years per House			Overcrowding	
	Houses	Population	Individuals per House	Rooms	Population	Individuals per Room	Houses	Children under 10 years	Children per House	Housing Act. 1936 Standard	Manchester Standard
1	—	—	—	—	—	—	—	—	—	—	—
2	36	87	2.4	72	87	1.2	20	16	0.8	1	11
3	642	1,916	2.98	1,926	1,916	0.99	595	269	0.45	13	86
4	2,727	8,393	3.08	10,908	8,393	0.77	2,605	1,180	0.45	8	225
5	1,349	4,854	3.6	6,745	4,854	0.72	1,269	631	0.5	—	43
6	490	2,008	4.1	2,940	2,008	0.68	404	256	0.63	—	15
7	276	1,337	4.84	1,932	1,337	0.69	246	166	0.67	—	9
Over 7	128	766	5.98	—	766	—	103	132	1.28	—	1
Totals . . .	5,648	19,361	3.43	24,523	19,361	0.78	5,242	2,650	0.5	22	390

TABLE D.
Housing Conditions—Year ended 31st December, 1938—in the
Form required by the Minister of Health.

General Statistics.

1. *Inspection of Dwelling-houses during the Year.*

(1) (a) Total number of dwelling-houses inspected for housing defects (Public Health or Housing Acts)	20,781
(b) Number of inspections made for the purpose ..	94,649
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 to 1932	5,648
(b) Number of inspections made for the purpose ..	19,285
(3) Number of dwelling-houses found to be in a state so dangerous or prejudicial to health as to be unfit for human habitation	5,436
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	80

2. *Remedy of Defects during the Year without Service of Formal Notices.*

Number of defective dwelling-houses repaired in consequence of informal action by the local authority or their officers	4,190
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3. *Action taken under Statutory Powers during the Year.*

(A) *Proceedings under sections 9, 10, and 16 of the Housing Act, 1936 :—*

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	—
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners	—
(b) By local authority in default of owners.	—

(B) *Proceedings under Public Health Acts :—*

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	4,673
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners	2,981
(b) By local authority in default of owners.	260

(c) *Proceedings under sections 11 and 13 of the Housing Act, 1936 :—*

(1) Number of dwelling-houses in respect of which demolition orders were made	10
(2) Number of dwelling-houses demolished in pursuance of demolition orders	1,718

(D) *Proceedings under section 12 of the Housing Act, 1936:—*

(1) Number of separate tenements or underground rooms in respect of which closing orders were made	2
(2) Number of separate tenements or underground rooms in respect of which closing orders were determined, the tenement or room having been rendered fit	—

Water Supplies.

The sources of town's water supply to the City are from impounding reservoirs at Thirlmere in the Lake District and Longdendale on the Yorkshire—Derbyshire border.

No new source of supply has been added during the year.

The water is chlorinated in the aqueducts and a solution of copper sulphate has been used at four of the service reservoirs for destroying algæ.

With few exceptions, the whole of the houses in the City are supplied with water from the town's mains. The exceptions occur in Crumpsall, where two cottages are supplied from a spring, and a number of houses in the outlying portions of Wythenshawe, where water is obtained from wells.

Samples of town's water from house taps are taken as a routine measure and are obtained also after receipt of complaints.

The bacteriological and chemical results of analysis are communicated to the Waterworks Department.

The following samples of town's water were taken during 1938 :—

For bacteriological examination	68
For chemical examination	68

Regular routine sampling of the water supply of the City, including sampling from outlets of storage, etc., reservoirs, and weekly samples from the two sources of supply—Longdendale and Thirlmere—is undertaken by the Waterworks Department and the results of analysis, are forwarded to the Medical Officer of Health.

This co-operation which exists between the two departments assists materially in maintaining the high standard of purity of the Manchester water supplies.

Reports were referred to the Waterworks Department with regard to 85 houses where the pressure of water was inadequate.

The water from seven wells supplying seven houses was analysed during the year and from four of the wells it was reported to be satisfactory.

Water from the other three wells was found to be contaminated, and communications were sent to the occupiers of the premises served by the wells intimating that the water was unfit for drinking purposes.

An analysis was made also of water from a spring in Crumpsall supplying two cottages and was reported to be satisfactory.

Fourteen wells supplying 24 houses in Wythenshawe were closed during the year and town's water was laid on.

Since the district of Wythenshawe was incorporated in the City in 1931, water samples have been obtained from all the known wells in the area and submitted for analysis.

These wells originally numbered 91 and supplied 145 houses.

Seventy-two wells supplying 115 houses have since been closed and town's water laid on to the houses, in addition to one house which was without a supply.

The water of three wells supplying three houses is considered to be satisfactory. The remaining 16 wells serving 27 houses are not considered to afford a pure supply, and in these cases the City Surveyor has been furnished with information with a view to statutory action where possible.

In many instances the installation of town's water would prove costly owing to the distance away of the nearest service main, but as a precautionary measure, pending the provision of a pure supply, the users of contaminated well water have been advised to boil all water intended for domestic purposes.

The Water Engineer has kindly supplied the following information of important extensions of mains during the year :—

Blackley	.. .. .	470 yards of 18 inches.
Do.	.. .. .	1,680 ,, 15 ,,
Do.	.. .. .	250 ,, 12 ,,
Moston	.. .. .	1,000 ,, 8 ,,
Northern Etchells	.. .. .	927 ,, 8 ,,

In the Wythenshawe district the following lengths of main have been laid during 1938 :—

Baguley	.. .. .	779 yards.
Northenden	.. .. .	623 „
Northen Etchells	.. .. .	2,384 „

Surveillance of Rivers and Streams.

I am indebted to the Secretary of the Rivers Department for the following statement regarding action taken to prevent pollution of rivers and streams :—

“ The circumstances detailed in previous reports regarding the surveillance and control of the rivers and streams in the City remain unchanged, the over-riding rivers authority, the Lancashire Rivers Board (formerly the Rivers Mersey and Irwell Joint Committee) continuing to deal with matters of pollution and the Rivers Department of the Corporation with obstruction to the flow of streams, buildings on the river walls, culverts, river banks (where not under the direct supervision of the Rivers Mersey and Irwell Catchment Board), encroachment on river lines, and the control of weirs and similar devices. The liaison work previously described between the Rivers Department and the Lancashire Rivers Board and between the Medical Officer of Health, the Chief Sanitary Inspector, and the Rivers Department has been continued throughout 1938 with satisfactory results to all concerned. The Rivers Department is particularly indebted to the Chief Sanitary Inspector for many useful hints of defaults in connection with the rivers and streams noted by his staff of district inspectors when engaged on their normal duties. The liaison work is much appreciated as it enables the Rivers Department to take action more promptly than would otherwise be possible.

“ Surveillance of streams has been continuous throughout the year and a large number of minor offences have been dealt with, fortunately without the necessity of taking offenders to Court.

“ In view of the large increase of surveillance work placed upon the Department by the operation of the Public Health (Drainage of Trade Premises) Act, 1937, a second Rivers Inspector has been appointed, and if the whole of the provisions of the Act are accepted by the Rivers Committee, additional inspectors will become necessary as administration matures. The Act has now been in force nearly twelve months and has worked smoothly so far. It creates a prescriptive right for those traders who have discharged to the sewer trade effluent during the twelve months ended 3rd March, 1937.”

“ In respect of these prescriptive discharges, the Corporation has only limited power of surveillance and control. With trade discharges originating after the 31st March, 1937, however, the Corporation has full powers and can call for payment for the service.

“ The Rivers Committee had decided to use its powers fully in regard to non-prescriptive discharges, but has not yet adopted a policy regarding the prescriptive discharges, the matter still being under the consideration of the advisory officials.”

The operation of the Act is resulting in a tendency to divert to the sewers trade effluents which have for long periods discharged direct to the water-courses after preliminary treatment. This is a desirable state of affairs in the case of the large streams like the Rivers Medlock, Irwell, and Irk, but not perhaps so desirable with the smaller watercourses where often in dry weather the flow is extremely small.

The question of the unsightliness of the watercourses of the City and the concomitant fouling of the waters and the obstruction to free flow has been under the careful consideration of the Department during the year, and the Secretary recently accompanied the Rivers Inspector on an extended inspection of the streams of the City. At many points the unsightliness caused by the presence of unwanted and filthy rubbish was beyond description, and the Secretary felt that if the Rivers Committee would make a similar inspection, members would be immediately convinced that no progress towards improved conditions could be expected unless the existing unsatisfactory routine of piecemeal clearance were abandoned and clearance operations of an extensive, permanent, and continuous nature were substituted. A full report was, therefore, presented to the Rivers Committee with recommendations.

The Corporation has power to require the clearance of debris from streams, and in the event of default can carry out such clearance work at the expense of the respective riparian owners, who own to the middle of the stream in each case. In the past, action has only been taken, generally speaking, in cases of obstruction of flow : unsightliness has not in itself been considered an adequate cause for requiring clearance work to be undertaken.

Points against the existing procedure are :—

- (a) The general unfairness of the practice which requires a riparian owner to remove from a stream alongside his property debris which he has not cast into it, but which has been thrown in, usually to his detriment, by other persons, or which has been washed downstream from higher reaches.

- (b) The loss of time occasioned by official routine Before the Corporation can take action, legally or physically, a notice has to be served upon the riparian owner to remove the material. Save in exceptional circumstances the Town Clerk does not serve a notice without an instruction of the Committee, and does not take action on a resolution until the proceedings have been approved by the City Council. A few days' grace have then to be allowed to permit of the riparian owner himself carrying out the clearance work. During the time required for these formalities an obstruction may be removed by a freshet and be redeposited on ground downstream, and the whole routine would then have to be gone through again.
- (c) The unsatisfactory nature of the clearance work of riparian owners. No two owners have the same idea of clearance work, or how far such work should be carried. Normally they do not possess proper tools or clothing adapted for working in water, therefore, the work is usually carried out in a perfunctory and diffident manner and always under a sense of grievance.
- (d) The large amount of time occupied by correspondence and by inquiries regarding the boundaries of riparian ownerships.
- (e) The criticism directed against the Rivers Department on the supposition that it is the duty of the Corporation to clear debris from the streams.
- (f) The difficulty of apprehending the actual persons who clandestinely deposit debris in the streams, and the apparent impossibility of obtaining convictions when people are caught, owing to the operation of the Probation of Offenders Act.
- (g) The present system hits particularly severely the riparian owner who really does look after the condition of his watercourse. He is indeed often at a greater disadvantage still because of his public spirit; he clears and deepens his watercourse, and in many cases his cleared length acts as a catchpit and serves to intercept and hold up more readily than before much matter which would otherwise pass downstream into somebody else's length.

(h) The length of time which has to be taken by the Rivers Inspector to ascertain the names and addresses of technical defaulters to whom letters have to be sent is often out of all proportion to the magnitude of the default. Moreover, the question of riparian ownership is frequently a very troublesome one. On the Moston Brook, for instance, between Henhurst Street and New Moston, there are probably thirty or forty different riparian ownerships. The boundaries of all these frontages would have to be measured and agreed with the respective owners before any question of charging could be undertaken.

The Secretary, therefore, recommended that the Committee should take into consideration his proposal that all such clearance work should be carried out by the Rivers Department staff in future.

The principal points in favour of this course may be set out:—

- (i) The general fairness of spreading the expenditure over the whole of the ratepayers. Horses foul the streets, but the whole cost of cleansing the streets falls neither on the owners of the horses nor on the frontagers, but is met by the general ratepayers, most of whom do not own or have any interest in horses.
- (j) The clearance work would be carried out efficiently on proper lines.
- (k) The Rivers Department would not be blamed unjustly for defaults.
- (l) A minimum amount of booking and administrative work and a diminution of correspondence on rivers matters would result.
- (m) The Rivers Inspectors would be relieved of much inquiry work regarding riparian ownerships, and would be able to devote more time to their purely surveillance work.

In cases where refuse or debris exists in bulk in a stream and can be definitely identified (such as in the case of a collapsed wall) the existing powers and routine of the Corporation would apply, viz.: a notice would be served, and, failing compliance, the Department would remove the obstruction at the cost of the party in default. The instruction to the police would remain, and offenders caught in the act would still be subject to prosecution in the police courts.

The Rivers Committee unanimously accepted the report of the Secretary, and authorised provision to be made in the annual estimates to meet the employment of a special gang of workmen to give effect to the recommendations. These men commenced work on the 13th April, 1939, and it is hoped to embody the result of their first nine months' operation in next year's report.

From these notes it will be seen that the Rivers Department has indeed been making strenuous efforts to improve the condition of the streams of the City, and is hopeful that the year 1939 will show a very decided improvement.

Drainage Defects and Repairs to Surfaces of Yards and Passages.

Section 23 of the Public Health Act, 1936, requires the local authority to maintain, cleanse, and empty all public sewers vested in them, and they are enabled by the provisions of section 24 of the same Act to recover expenses incurred in carrying out maintenance work, including repair and renewal.

Section 24 of the Act also requires the local authority to give notice of their intention to carry out such works to the prospective owners of property served by lengths of public sewer.

During 1938, 189 such notices were served, involving 532 premises, and the Technical Section of the Department effected works to be public sewers in connection with 96 notices and 245 premises, at a recoverable cost of £1,267.

Where the local authority is of the opinion that immediate action is necessary the work may be commenced without notice, and in this connection 36 cases concerning 192 premises were referred to the Technical Section with a view to the necessary works being carried out in emergency. The cost of these works amounted to £459.

The cleansing, reconstruction, repair, or provision of drains at 178 premises was effected as a result of informal notices (see Table, No 5, page 424), and as a result of statutory notices under the Public Health Act, 1936, or the provisions of local Acts, drainage work was carried out at 708 premises (see Table No. 6, page 425).

Service of notices under the Public Health or local Acts resulted in repairs being carried out to surfaces of yards and passages in connection with 868 premises (see Table No. 6, page 425).

Works executed by owners' contractors are supervised by the district sanitary inspectors, and in cases of default or at owners' requests the works are carried out by the Technical Section of the Department, the recoverable costs being charged to the owners. During the year the cost of such works amounted to £2,953, and 672 premises were affected.

Drains which had been reconstructed, repaired, or provided (other than those of new buildings), which were subjected to the water test by officials of the Public Health Department, numbered 248.

Section 31 of the Manchester Corporation (General Powers) Act, 1930, and Section 41 of the Public Health Act, 1936, require persons carrying out repairs to or covering over drains to give notice of their intention to the Corporation with a view to the necessary inspection and testing. The Corporation is enabled to proceed against defaulters in this respect, and 7 such offences were reported during 1938.

Cautionary letters which were sent in each case resulted in the drains being exposed for inspection, etc.

As a result of co-operation between the Public Health and Highways Committees with regard to the abolition of cesspools in Wythenshawe, four such cesspools were removed and the drainage of four houses concerned was reconstructed and connected to public sewers.

Closet Accommodation.

During the year 46 pail closets and 11 privies were demolished or converted to waterclosets.

The present closet accommodation in the City is as follows :—

Waterclosets	289,818
Slop waterclosets	30
Pail closets	741
Privies	219

The pail closets and privies generally are in situations where sewers are not available.

Sewerage and Sewage Disposal.

Main Drainage.

The City Engineer has kindly furnished the following information :—

Work has been in progress during the greater part of 1938 on a further contract of the main drainage scheme. The new sewer (part of Work No. 6) runs from the River Medlock along Mill Street, Hulme Hall Lane, Albion Street, Oldham Road, and Collyhurst Street to Rochdale Road, where it joins the main sewer previously constructed. It is 6ft. 3in. in diameter, and the cost will be about £61,000. It is expected that this sewer will be completed by June next.

A 4ft. 3in. diameter storm relief sewer in Rochdale Road and Alfred Street, Moston, has also been commenced, and should be completed shortly. The estimated cost is about £18,500.

A storm-water sewer has been constructed in Charlestown Road, Blackley, for the relief of flooding in the existing sewer.

Sewage Disposal.

The following statement is available through the courtesy of Mr. William Porthouse, Secretary of the Rivers Department :—

“ At the end of the year 1938 the construction and equipment of the two new rectangular linear flow preliminary settlement tanks at the Davyhulme Sewage Works, referred to in the last report, was practically complete, and these tanks were ultimately brought into commission in February, 1939. The sludge digestion plant referred to in the last report has operated satisfactorily throughout the year. The preparation of the detail drawings of the large-scale extension scheme at the Davyhulme Sewage Works, already sanctioned by the City Council, has been retarded by reason of the employment of the staff of the City Engineer on urgent air raid precautions and other work. The preliminary work on the drawings, however, is now well advanced, and the scheme should shortly be ready for submission to the Minister of Health, apart from details relating to the disposal of the large amount of surplus activated sludge which will have to be dealt with when the new works come into commission. This aspect of the problem is receiving close attention with a view of determining the most economic way of coping with the new situation.

With regard to the policy of the Corporation to accept into the City sewers wherever practicable the sewage from outside districts on agreed terms, the sewage treatment agreement concluded with the Droylsden Urban District Council last year comes into effect on the 1st June, 1939, the new sewer to receive the Droylsden sewage being practically completed at the time of drafting these notes. The arrangements for the reception of the sewage from Bramhall, Poynton, and Woodford are now awaiting the necessary sewerage provision by the authorities concerned. Negotiations are also pending regarding the proposal to discharge to the Manchester sewers the sewage from the Urban District of Failsworth, and the Rural District of Limehurst. All these proposals are extremely desirable as serving to reduce the number of pollution points on the local streams.”

Sanitary Conveniences at Parks, Cemeteries, and Open Spaces.

These conveniences have been inspected regularly by male and female sanitary inspectors with a view to maintenance of cleanliness and freedom from nuisance.

1,110 such inspections were made during 1938.

In 42 instances defects were reported, which were subsequently remedied.

Public Conveniences.

The total number of conveniences under the control of the department is 145, with accommodation as follows:—

Males.

Urinal, water-closet, washing, and parcels accommodation..	8
Urinal, water-closet, and washing accommodation	6
Urinal and water-closet accommodation	24
Urinal accommodation	76
Total	<u>114</u>

Females.

Water-closet, washing, and parcels accommodation.. ..	11
Water-closet and washing accommodation	9
Water-closet accommodation	11
Total	<u>31</u>

Details of initial costs, working expenses, receipts, etc., are given in Table No. 8, pages 427-429.

Improvements continue to be effected as far as practicable.

The urinal in Union Street, Ancoats, near the Steps Bridge, has been rebuilt.

An insanitary urinal in Pump Yard, City, has been demolished. This should not cause any inconvenience to the public as there is ample accommodation in the vicinity.

The erection of conveniences situate at the junction of Princess Parkway and Wythenshawe Road is in progress.

Schools.

Visits to schools during the year numbered 158 and were mainly in connection with nuisances, drainage work, and closet accommodation.

Atmospheric Pollution.

Smoke Abatement.

Administration of legislation with regard to smoke abatement has continued during the year.

Four smoke inspectors are employed for the purpose of observation of industrial chimneys in the City and their hours of duty are so arranged that maximum supervision is exercised over the chimneys concerned.

Details of their work are as follows :—

Timed observations taken—842.

Revealing black smoke two minutes and over in half-hour periods..	108
Revealing black smoke two minutes and over in half-hour periods (chimneys outside the City boundaries).. . .	2
Exempted chimneys revealing black smoke two minutes and over in half-hour periods	12
Revealing smoke, other than black, and causing nuisance..	20
Revealing black smoke under two minutes	348
Revealing black smoke under two minutes outside City boundaries	6
Exempted chimneys revealing black smoke under two minutes	3
Not revealing black smoke (taken upon complaints) .. .	326
Revealing smoke other than black but not in such quantity as to be a nuisance	17
Total amount of black smoke observed in minutes .. .	1128·0
Average amount of black smoke observed in minutes (per observation revealing black smoke)	2·29

Observations taken and not included in above.

Locomotives on railways	195
Special reports made	63
Number of complaints received from all sources	86
Number of visits to works <i>re</i> smoke abatement	1259
Number of premises where inspector recommended plant to be altered, improved, or repaired	10
Number of cases where plant was found to be altered, etc., as a result of inspector's recommendations.. . . .	5
Number of cases reported to Committee	142
Cases in which no action taken (exempted chimneys) ..	12
Cases cautioned or excused by Committee	22
Statutory notices served	66
Magistrates' Order to abate nuisance obtained	8
Prosecutions for smoke nuisances and penalties imposed..	34
Total amount of penalties and costs	£72 4s.
Statutory notices expiring without further action .. .	43
Statutory Orders lapsing for various reasons	6
Approximate number of chimneys	1,459

Of the 66 statutory notices served, 19 were in respect of "smoke other than black." Eight observations were taken of chimneys outside the City, which resulted in the service of two statutory notices.

No legal proceedings were taken in connection with the many cases of smoke emissions from railway locomotives, owing to the difficulty of obtaining the necessary evidence. Nuisance from this source would be abated to a large extent by extended electrification, and with this object conversion to this form of motive power is a pressing need for the numerous suburban lines radiating from the City.

Causes to which Smoke Emission is attributed.

Of the 130 cases reported to the Committee where chimneys (other than exempted chimneys) emitted smoke two minutes or over in the half hour period, the nuisance was found to be due to the undermentioned causes :—

Bad firing	75
Unsuitable fuel	12
Bad firing and unsuitable fuel	16
Fireman having other duties to perform, combined with bad firing	3
Insufficient boiler plant	1
Structural defects in plant	5
Alterations to plant in progress	5
*Accidental causes outside the control of the fireman.. ..	1
Unskilled fireman	4
Abnormal demand on plant	7

* Broken firebars, etc.

In this City the Watch Committee are the administrative authority for the purposes of the Minister of Transport's regulations under the Road Traffic Act, 1930, with regard to the emission of smoke, grit, ashes, etc., from road locomotives, steam wagons, and vehicles with compression ignition engines.

The provisions of the Manchester Police Act, 1844, with respect to the firing of domestic chimneys are delegated also to the Watch Committee for administrative purposes.

By courtesy of the Chief Constable, it is learned that during 1938 two successful prosecutions were instituted in connection with emissions of smoke from vehicles having compression ignition engines. In one case the offender was fined 20s. and in the other case the payment of 4s. costs was ordered.

The Police Department summoned 850 persons with regard to the firing of domestic chimneys. 841 offenders were convicted and 9 cases were dismissed. The total amount of fines imposed was £196 12s.

The activities of the Gas and Electricity Departments have continued to effect material contributions towards smoke abatement, and I am obliged to the Commercial Manager and Secretary of the Gas Department (Mr. J. H. Cadman) and the Chief Engineer of the Electricity Department (Mr. H. C. Lamb) for the statements which follow.

GAS DEPARTMENT.

	Year ending 31st March		Increase
	1938	1939	
Output of Gas (thousands of cu. ft.)	6,640,997	6,775,512	134,515 = 2.03 %
No. of consumers	222,851	226,154	3,303 = 1.48%
Gas-consuming appliances—			
Cookers	182,127	185,367	3,240 = 1.77 %
Fires, radiators, etc. ..	45,846	47,309	1,463 = 3.19 %
Hot water apparatus ..	28,213	31,532	3,319 = 11.76%

Industrial Supplies :—

The sales of gas for industrial and commercial purposes were again substantially increased during the year, and the quantity sold for these purposes now represents 35 per cent. of the total sales.

Thirty-three premises were installed with gas-fired boilers for central heating purposes during the year.

Coke :—

The use of coke for domestic purposes during the year was maintained.

ELECTRICITY DEPARTMENT.

	At 31st March, 1939
Total number of premises in area of supply	264,798
Total number connected	184,881
Number of domestic consumers	151,605
Number of consumers on the " all-in " tariff (using electricity for domestic heating, cooking, etc., in addition to lighting)	69,202
Units of electricity sold (excluding bulk supplies) :—	
Year ending 31st March, 1939	478,956,124
Do. 1938	474,600,000
Number of motors connected—	
Year ending 31st March, 1939	76,634
Do. 1938	70,022
Total horse power connected—	
Year ending 31st March, 1939	313,850.9
Do. 1938	302,046.5
Total number of heating and cooking appliances connected—	
Year ending 31st March, 1939	212,150
Do. 1938	192,258

During the year ending 31st March, 1939, a total of 657 h.p. of industrial engines was replaced by electric motors.

Over 400 h.p. was represented by steam engines and the balance by oil engines. Their removal has made a definite contribution towards decreasing atmospheric pollution.

Proposed Smokeless Central Zone.

In May the Public Health Committee received a deputation from the National Smoke Abatement Society, and members of the deputation addressed the Committee in support of a proposal that statutory authority should be obtained by the Corporation for the establishment of an area comprising the central commercial district of the city in which the mere emission of smoke from premises, other than those occupied as private houses, would be a smoke nuisance for the purposes of the Public Health Act, 1936.

The proposed "smokeless central area" is approximately 104 acres in extent and bounded by the following streets:—

Deansgate (from Peter Street to St. Mary's Gate), St. Mary's Gate, Market Street, Piccadilly (to Portland Street), Portland Street, Oxford Street (from Portland Street), Peter Street.

On the instructions of the Committee the Medical Officer of Health caused a survey to be made of the premises within the area, and the following information was obtained with regard to heating installations and fuel consumption:—

Total number of premises	1,134
Number of unoccupied premises ..	66
Number of premises surveyed	1,068

USE OF PREMISES:—

137 factories, 296 warehouses, 605 offices, 4 schools or colleges, 5 public—municipal, 6 public—government, 11 clubs, 76 restaurants, 18 public houses, inns or beerhouses, 353 shops, 3 department stores, 2 cinemas or theatres, 1 dance hall, 3 billiard halls, 3 churches, 30 other.
Total: 1,553.

NUMBER OF CHIMNEYS OR OPENINGS CAPABLE OF EMITTING COKE.. 4,505

OPEN GRATES IN BUSINESS PREMISES.

Number—3,901 (330 not in use) consisting of 2,276 modern barred, 1,275 modern barless, and 350 other types.

Fuel consumed per week in these open grates:—

Fuel	Quantity	Per cent. of total
Bituminous Coal.. .. .	150 tons 14½ cwts.	97·16
Anthracite	1 cwt.	0·03
Coke	1 tons 0½ cwt.	0·66
Semi-coke	3 tons 6½ cwts.	2·15
Total fuel	155 tons 2½ cwts.	100·00
Smoke-producing solid fuel	150 tons 14½ cwts.	97·16
Smokeless solid fuel	4 tons 8 cwts.	2·84

All the grates are capable of conversion for smokeless combustion.

STOVES :—Total 98.

64 slow combustion type—

42	burning coke (3 disused at present) ..	} 54 smokeless.
1	„ semi-coke	
11	„ anthracite	
10	„ bituminous coal	Capable of burning smokeless fuel such as coke, semi-coke, or anthracite.

10 other types—

4	burning coke	Smokeless.
6	burning coal	Capable of conversion for smokeless combustion.

24 oil stoves Normally smokeless.

Miscellaneous appliances—

4 furnaces for type casting Fired by coal 1, oil 1, gas 1, electricity 1. The coal fired furnace is not smokeless and would have to be replaced.

2 coke fired forges Smokeless.

Gas heated appliances—

7 industrial ovens, 10 industrial irons, 1 glue kettle, 26 iron heaters.

Electrically heated appliances—

1 industrial oven, 1 industrial steamer, 10 industrial irons.

SUMMARY OF STOVES AND MISCELLANEOUS APPLIANCES.

82 stoves are smokeless. 61 miscellaneous appliances are smokeless.

16 stoves are *not* smokeless. 1 miscellaneous appliance is *not* smokeless.

Solid fuel consumed per week in these stoves, etc. :—

Bituminous coal—13 cwts.	} Total: 3 tons 13½ cwts.
Coke—3 tons	
Semi-coke—½ cwt.	

BOILER PLANT FOR CENTRAL HEATING, STEAM SUPPLY,
AND HOT WATER SUPPLY.*Central Heating :—*

Low pressure hot water systems .. 300 boilers	} Total: 310 boilers.
High pressure hot water systems .. 3 boilers	
Low pressure steam systems 4 boilers	
High pressure steam systems 3 boilers	

Low pressure hot water systems.

225 sectional boilers—

191 coke fired by hand (2 disused)	} Smokeless.
3 coke fired mechanically	
6 bituminous coal fired by hand	<i>Not</i> smokeless.
7 bituminous coal fired mechanically (underfeed stokers) (2 burn semi-bituminous coal) ..	Smokeless in normal use.
6 anthracite fired by hand	Smokeless.
2 gas fired	Smokeless.
10 oil fired	Smokeless.

17 vertical boilers—

12	coke fired by hand	..	..	..	..	..	Smokeless.
2	bituminous coal fired by hand	..	..	..	..	..	<i>Not</i> smokeless.
1	bituminous coal fired mechanically	..	..	..	..	..	<i>Not</i> smokeless.
2	anthracite fired by hand	..	..	..	..	..	Smokeless.

54 special boilers—

25	coke fired by hand	..	..	..	..	..	Smokeless.
2	bituminous coal fired by hand	..	..	..	..	..	<i>Not</i> smokeless.
1	bituminous coal fired mechanically (underfeed stoker)	..	..	..	..	..	Normally smokeless.
2	anthracite fired by hand	..	..	..	..	..	Smokeless.
13	gas fired	..	..	..	..	..	Smokeless.
7	oil fired	..	..	..	..	..	Smokeless.
4	electrode	..	..	..	..	..	Smokeless.
1	jacketted slow combustion stove coke fired by hand	..	..	..	..	..	Smokeless.
3	horizontal industrial boilers (economic type) bituminous coal fired by hand..	..	..	..	..	..	<i>Not</i> smokeless.

High pressure hot water systems.

1	sectional boiler coke fired by hand	..	..	..	..	..	Smokeless.
2	special boilers coke fired by hand	..	..	..	..	..	Smokeless.

Low pressure steam systems.

3	sectional boilers coke fired by hand	..	..	..	..	..	Smokeless.
1	industrial horizontal boiler (Cornish type) coke fired by hand	..	..	..	..	..	Smokeless.

High pressure steam systems.

1	sectional boiler coal fired mechanically (underfeed stoker)	..	..	..	..	..	Normally smokeless.
1	vertical boiler coal fired mechanically (underfeed stoker)	..	..	..	..	..	Normally smokeless.
1	vertical boiler coke fired by hand..	Smokeless.

Steam Supply: Cooking, etc. :—

1	vertical boiler gas fired	Smokeless.
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Hot Water Supply: Total 117 boilers :—

10 sectional boilers—

8	coke fired by hand	Smokeless.
1	bituminous coal fired by hand	..	..	..	..	..	<i>Not</i> smokeless.
1	oil fired	..	..	..	..	..	Smokeless.

22 vertical boilers—

19	coke fired by hand	..	..	..	..	..	Smokeless.
2	bituminous coal fired by hand	..	..	..	..	..	<i>Not</i> smokeless.
1	anthracite fired by hand	..	..	..	..	..	Smokeless.

85 other boilers (mainly small type)—

24	coke fired by hand	..	..	..	..	..	Smokeless.
1	bituminous coal fired by hand	..	..	..	..	..	<i>Not</i> smokeless.
4	anthracite fired by hand	..	..	..	..	..	Smokeless.
45	gas fired	..	..	..	..	..	Smokeless.
7	oil fired	..	..	..	..	..	Smokeless.
4	electrode	..	..	..	..	..	Smokeless.

SUMMARY OF BOILER PLANT CONNECTED WITH CENTRAL HEATING,
STEAM SUPPLY, AND HOT WATER SUPPLY.

410 boilers are smokeless.

18 boilers are *not* smokeless.

Fuel consumed per week in boiler plant.

Bituminous coal ..	45 tons 1 $\frac{1}{4}$ cwts.	} Total solid fuel:— 275 tons 19 $\frac{1}{4}$ cwts
Coke	228 tons 0 cwt.	
Anthracite	2 tons 18 cwts.	
Oil	3,180 gallons.	

INDUSTRIAL STEAM RAISING PLANT.

2 separate installations—

- (a) 2 Lancashire boilers (Galloway type) coke fired by hand started with bituminous coal. Used for heating, process, and power Smokeless.
- (b) 3 Lancashire boilers bituminous coal ($\frac{1}{2}$ -inch washed nuts) fired mechanically. Used for heating and process *Not* smokeless.

SUMMARY OF INDUSTRIAL STEAM RAISING PLANT.

5 boilers—

2 boilers are smokeless.

3 boilers are *not* smokeless.

Fuel consumed per week:—

Bituminous coal	30 tons 2 cwts. —	93.76 per cent. total.
Coke	2 tons 0 cwts. —	6.24 per cent. total.

Total fuel 32 tons 2 cwts.

COOKING RANGES AND APPLIANCES.

Kitchen and other type ranges—Total 66.

- 64 bituminous coal fired *Not* smokeless.
- 2 coke fired Smokeless.

Bakers' ovens—11 coke fired Smokeless.

Ovens—7.

- 5 bituminous coal fired *Not* smokeless.
- 2 coke fired Smokeless.

Grillers—15.

- 2 bituminous coal fired *Not* smokeless.
- 13 coke fired Smokeless.

Gas appliances—1,453.

- | | |
|----------------|------------------------------------|
| 108 ovens. | 37 steamers. |
| 397 cookers. | 18 poachers and toasters. |
| 103 ranges. | 132 geysers. |
| 105 grillers. | 114 water heaters (miscellaneous). |
| 86 hot plates. | 2 crockery washers. |
| 351 rings. | |

Electrical appliances—269.

10 ovens.	134 kettles.
10 cookers.	10 geysers.
15 ranges.	24 water heaters (miscellaneous).
12 grillers.	5 hot cupboards.
29 hot plates.	1 mixer.
11 rings.	2 crockery washers.
6 poachers and toasters.	

SUMMARY OF COOKING RANGES AND APPLIANCES.

28 solid fuel fired ranges and appliances are smokeless.

71 solid fuel fired ranges and appliances are *not* smokeless.

1,453 gas fired ranges and appliances are smokeless.

269 electrically fired ranges and appliances are smokeless.

Solid fuel consumed per week :—

Bituminous coal 8 tons 15 cwts.

Coke 6 tons 6 cwts.

GAS AND ELECTRIC FIRES OR HEATERS.

Gas : 2,556—of which 2,242 replace open fires, 238 are in addition to open fires or central heating, and 76 are in rooms without flues.

Electric : 2,257—of which 1,096 replace open fires, 917 are in addition to open fires or central heating, and 244 are in rooms without flues.

TOTAL AMOUNT OF SOLID FUEL CONSUMED IN THE AREA PER WEEK,
EXCLUDING DWELLING HOUSES.

Bituminous coal	235 tons, 5 $\frac{3}{4}$ cwts. —	48·76 per cent. total.
Anthracite	3 tons, 10 cwts. —	0·73 ..
Coke	240 tons, 7 cwts. —	49·81 ..
Semi-coke	3 tons, 7 $\frac{1}{2}$ cwts. —	0·70 ..

Total solid fuel.. .. 482 tons, 10 $\frac{1}{4}$ cwts.

DWELLING HOUSES.

In connection with the foregoing survey the following information has been obtained with regard to premises within the area which are used for domestic purposes :—

Number of premises used solely as dwelling houses	6
„ „ containing private living accommodation..	2
„ „ used as offices containing caretakers' flats ..	44
„ „ used as clubs	2
„ „ used as church and club	1
„ „ used as public hall, shop, and restaurant containing caretaker's flat	1
„ „ used as shops containing occupiers' living accommodation	4
„ „ used as public houses—licensees	12

Total number of premises with living accommodation .. 72
Number of chimneys or openings capable of emitting smoke.. .. 189

OPEN GRATES IN DWELLING HOUSES.

Number :—140 (35 not in use), consisting of 95 modern barred, 39 modern barless, and 6 other types.

Solid fuel used per week :—

3 tons 11 cwts. bituminous coal, 1½ cwts. semi-coke (in 2 grates).

STOVES.

1 slow combustion type, burning 1 cwt. bituminous coal per week.

COOKING RANGES.

49 coal fired kitchen ranges, burning 4 tons 3 cwts. bituminous coal per week.

GAS COOKING, ETC., APPLIANCES.

Total—52.

9 ovens.	5 boilers (washing).
4 rings.	1 water heater.
29 cookers.	1 range.
3 grillers.	

ELECTRIC COOKING APPLIANCES.

2 cookers.

GAS AND ELECTRIC FIRES OR HEATERS.

Gas.

Total : 26, of which 25 replace open fires and one is in a room with no flue

Electric.

Total : 33, of which 22 replace open fires, nine are in addition to open fires, and two are in rooms without flues.

TOTAL SOLID FUEL CONSUMED PER WEEK IN DWELLING HOUSES.

Bituminous coal 7 tons, 15 cwts.

Semi-coke 1½ cwts. (in 2 grates).

The foregoing statistics indicate that in the business premises within the area gas and electricity are utilised to a considerable extent for heating purposes, and in addition over half the solid fuel which is consumed is smokeless.

As such a large proportion of the heat and power used in the area is already produced by smokeless methods it would appear to be a practicable and economic proposition for those commercial concerns which continue to pollute the atmosphere by smoke, to follow the example of their more enlightened neighbours.

Regional Smoke Abatement.

The work of the Manchester and District Regional Smoke Abatement Committee has continued during the year particularly in relation to the formation of a statutory regional smoke abatement authority and in connection with organisation of classes for the training of firemen, etc.

The report of the Regional Committee appears on page 456.

Investigation and Measurement of Atmospheric Pollution.

Observations on atmospheric pollution, in co-operation with the Department of Scientific and Industrial Research, have been continued during the year.

Standard soot deposit gauges are installed at seven representative places in the City, viz. :—

Baguley Sanatorium, Booth Hall Hospital, Heaton Park, Monsall Hospital, Philips Park, Rusholme, and Withington.

Estimation of the activity of atmospheric sulphur by the lead peroxide method is effected by apparatus at Monsall Hospital, Rusholme, and Withington.

Analysis of the contents of the deposit gauges and examination of the fabric from the lead peroxide cylinders is carried out by the City Analyst at monthly intervals.

Soot Deposit Gauges.

On the 1st July, 1938, observations were discontinued at Oldham Road and the deposit gauge was removed to a new site at Monsall Hospital.

For the year ending 31st March, 1939, the highest deposit occurred at Philips Park where there was a monthly mean of 41·35 tons per square mile and the lowest deposit was noted at Baguley—11·34 tons per square mile. The average deposit per month for all gauges was 19·74 tons compared with 21·85 tons per square mile for the previous year.

Insoluble matter continued to be higher in summer months than in winter months and soluble matter higher in winter than in summer.

The table of pH or hydrogen ion concentration values indicates the activity or concentration of acid or alkaline collected matter in the gauges.

The rainwater at all points of observation was markedly acid during the whole of the year except at Rusholme and Withington where acid conditions obtained for most of the year.

Deposited Atmospheric Pollution (Tons per Square Mile).

April 1938 to March, 1939.

Situation of Gauge	Rainfall (inches)		Insoluble matter		Soluble matter		Total Solids	
	1938-39	1937-8	1938-9	1937-8	1938-9	1937-8	1938-9	1937-8
BAGULEY—								
Monthly mean.. .. .	3.3	2.0	3.57	3.66	7.76	5.25	11.34	8.91
Monthly mean—summer	2.7	2.0	4.24	4.00	6.52	5.32	10.76	9.32
Monthly mean—winter	3.8	2.0	2.90	3.35	9.01	5.18	11.92	8.50
BOOTH HALL—								
Monthly mean.. .. .	3.5	2.1	6.90	6.74	8.12	7.85	15.02	14.59
Monthly mean—summer	2.7	2.1	6.37	7.29	5.77	8.21	12.14	15.50
Monthly mean—winter	4.4	2.1	7.43	6.19	10.47	7.49	17.90	13.69
HEATON PARK—								
Monthly mean.. .. .	3.8	2.2	5.54	5.15	6.80	6.39	12.35	11.55
Monthly mean—summer	3.0	2.1	5.54	5.59	4.94	6.35	10.48	11.94
Monthly mean—winter	4.7	2.4	5.55	4.72	8.66	6.44	14.21	11.16
MONSALL—								
Monthly mean.. .. .	3.5	—	10.85	—	8.80	—	19.65	—
Monthly mean—summer	2.6	—	11.16	—	6.87	—	18.04	—
Monthly mean—winter	4.0	—	10.69	—	9.76	—	20.45	—
PHILIPS PARK—								
Monthly mean.. .. .	3.5	2.0	29.40	28.76	11.95	11.55	41.35	40.31
Monthly mean—summer	2.8	2.0	30.25	30.12	7.92	10.23	38.17	40.35
Monthly mean—winter	4.3	2.0	28.55	27.40	15.98	12.86	44.54	40.26
RUSHOLME—								
Monthly mean.. .. .	3.4	2.0	16.83	17.20	8.73	7.97	25.57	25.18
Monthly mean—summer	2.7	1.9	20.77	20.20	7.56	9.12	28.34	29.32
Monthly mean—winter	4.1	2.0	12.89	14.21	9.90	6.82	22.79	21.04
WITHINGTON—								
Monthly mean.. .. .	3.1	1.9	5.84	5.79	6.99	7.39	12.84	13.18
Monthly mean—summer	2.3	1.8	5.88	6.23	6.28	6.13	12.16	12.36
Monthly mean—winter	3.8	1.9	5.80	5.35	7.71	8.65	13.51	13.99
ALL GAUGES—								
Monthly mean.. .. .	3.4	2.0	11.35	13.39	8.39	8.45	19.74	21.85
Monthly mean—summer	2.3	2.0	12.17	14.41	6.50	8.06	18.67	22.45
Monthly mean—winter	4.1	2.1	10.52	12.38	10.29	8.84	20.81	21.22

Sulphur Pollution.

The method of estimation consists in exposing a cylinder wrapped with fabric which is coated with lead peroxide. The cylinder has a surface area of 100 square centimetres.

Lead peroxide apparatus is installed at Monsall Hospital, Rusholme, and Withington, that at Monsall having been removed from Oldham Road during 1938.

A comparison of results for the year ending 31st March, 1939, and the previous year, indicates decreases in sulphur pollution at Rusholme and Withington, whilst the figures for Monsall were similar to those at the former station at Oldham Road.

As in previous years, seasonal variation was noted at all points of observation, much higher figures being obtained for winter months than for summer.

Sulphur Pollution.*Measurement by Lead Peroxide Method.*

Twelve months April to March	Weight in milligrammes SO ₃ per 100 square centimetres exposed surface per day					
	Monsall		Rusholme		Withington	
	1938-9	1937-8	1938-9	1937-8	1938-9	1937-8
Monthly mean..	5.10	—	2.47	2.87	1.69	2.27
Monthly mean—summer	3.37	—	1.94	1.70	1.57	1.53
Monthly mean—winter	5.97	—	3.01	3.87	1.82	3.00

pH Values for Seven Manchester Stations.

Month	Baguley	Booth Hall	Heaton Park	Oldham Road	Philips Park	Rusholme	Withington
April 1938 ..	4.0	4.0	4.0	—	4.5	5.5	—
May „ ..	4.0	4.0	4.0	—	4.0	4.0	4.0
June „ ..	4.5	4.0	4.0	—	4.0	6.5	4.5
July „ ..	4.0	4.0	4.0	4.0	4.0	4.5	4.0
August „ ..	4.0	4.0	4.0	4.0	4.0	5.0	4.0
September „ ..	4.0	4.0	4.0	4.0	4.0	4.0	4.0
October „ ..	4.0	4.0	4.0	4.0	4.0	4.0	4.0
November „ ..	4.5	4.0	4.0	4.0	4.0	4.0	4.5
December „ ..	4.0	4.0	4.0	4.0	4.0	4.0	4.0
January 1939 ..	4.0	4.0	4.0	4.0	4.0	4.0	4.0
February „ ..	4.5	4.0	4.0	4.0	4.0	4.0	5.0
March „ ..	4.5	4.0	4.0	4.0	4.0	4.0	6.5

Offensive Trades.

At the end of 1938 the following offensive trades were being carried on at 738 premises, and were registered under the schedule relating to such trades which is in force in the City :—

Blood Manure Manufacturer	I	Poultry Food Manufacture	I
Bone Boiling ..	I	Fat Melting	3
Soap Boiling ..	6	Gut Scraping	3
Tallow Melting..	2	Pickle and Sauce Manufacture	9
Tripe Boiling ..	6	Rag and Bone Dealing	27
Fish Curing ..	2	Rubber Paste or Solution Spreader ..	9
Fish Frying ..	656	Size Making	2
Oil Distilling ..	3	Manure Manufacture	I
Tanning	4	Rubber Substitute Manufacture	2

During the year the district sanitary inspectors made 2,990 inspections of offensive trades, 2,627 of the visits being to fish-frying establishments.

The fish-frying premises were found to be clean and satisfactory generally, though in 40 instances cautions were necessary with regard to dirty conditions and minor defects.

On subsequent visits these cautions were found to have been complied with.

The 363 inspections of other offensive trades revealed a general freedom from nuisance.

Thirty-four applications to establish offensive trades were received during the year, viz. :—

Fish-frying 29, rag and bone dealing 3, gut scraping I, fish curing I.

Consent for limited periods was granted in the following instances :—

Fish-frying 9, rag and bone dealing I, gut scraping I, fish curing I.

The remaining 22 applications were refused on the grounds of unsuitability of the site or the premises.

Five fish-frying businesses and two rag and bone dealing businesses were established during the year, and 11 fish-frying businesses and one rag and bone dealing business were discontinued.

Fourteen applications were received for extension of the periods in the consents granted. In all cases the businesses were reported to have been carried on in a satisfactory manner and the necessary consents were given.

One instance was reported to the Committee where the occupier of the premises concerned had established an offensive trade without the consent of the Corporation. Legal proceedings were instituted and the offender was fined 5s.

There were 779 observations in connection with effluvium and dust nuisances during the year.

These were mainly with regard to premises mentioned in previous Annual Reports, where rubber substitute is produced.

In this case, nuisance caused by offensive smells from the processes was reported occasionally during the year, and the premises have continued to receive attention by officers of the department and by H.M. Inspector of Alkali Works.

The department was concerned also during 1938 with complaints of dust nuisance from a heap of material which was being stored in the open by a chemical manufacturing firm. This substance, known as "spent oxide," consists of oxide of iron, which has been used for gas purification, during which sulphur is absorbed.

Complaints were received from householders in the district that particles of the material in considerable quantities were being blown by the wind into their houses.

As a result of representations by the department, the management of the firm concerned erected high hoardings round the heap of spent oxide, and placed baffle boards in the material with a view to abating the conditions complained of.

Factories and Workplaces.

Important changes in the law relating to factories were effected during the year.

The Factories Act, 1937, came into force on the 1st July, 1938, and repealed the Factory and Workshops Acts, 1901 and 1907 and other legislation affecting factories.

Under the new Act the old distinction between a factory and a workshop is abolished. The expression "workshop" disappears, and only one term—"factory"—is employed.

For certain purposes a distinction is drawn in the Act between factories where mechanical power is used and factories where it is not used.

The particular provisions of the Act which it is the duty of the local authority to enforce are with respect to cleanliness, overcrowding, temperature, ventilation, drainage of wet floors, and sanitary accommodation in factories *without* mechanical power, sanitary accommodation in factories *with* mechanical power, and the certification of means of escape in case of fire at *all* factories.

These provisions have been delegated for administrative purposes to the Public Health Committee.

Other powers provided by the Act are dealt with by H.M. Factory Inspectorate

During 1938, 5,063 inspections of factories were made for the purposes of the Factories Acts.

There were also 3,724 inspections of bakehouses (see page 365) and 993 inspections of workplaces.

Infringements of the Factories Acts were reported in 69 instances, including premises which were formerly termed "workshops," and were dealt with as follows:—

* *Want of Cleanliness.*

Cautions given	.. .. .	14
Cautions complied with	.. .. .	9
Notices served	.. .. .	5
Notices complied with	.. .. .	6

(including one notice outstanding from 1937).

Sanitary Accommodation.

By virtue of the powers contained in section 7 of the Factories Act, 1937, the Secretary of State has prescribed by the Sanitary Accommodation Regulations, 1938, standards for sanitary accommodation in factories, and these standard requirements are administered in conjunction with provisions of local Acts.

* *Sanitary Conveniences.*

Insufficient :—

Intimations sent or notices served	10
Intimations or notices complied with	16
(includes 12 cases outstanding from previous years).	

Unsuitable or Defective :—

Cautions given	9
Cautions complied with	9
(includes one case outstanding from 1937).	
Intimations sent or notices served	28
Intimations or notices complied with	28
(includes 12 cases outstanding from previous years).	

Not Separate for Sexes :—

Intimations sent or notices served	5
Intimations or notices complied with	2

* *Structural Defects.*

Notices served	3
Notices complied with	4

(Includes one notice outstanding from 1937).

* Not including bakehouses, but see page 365.

Number of factories on register, 31st December, 1937 ..	5,538
„ „ registered during 1938	139
„ „ discontinued during 1938.. .. .	106
„ „ on register, 31st December, 1938 ..	5,571

Means of Escape in case of Fire.

Twenty-four cases relating to factories not provided with adequate means of escape in case of fire were referred during the year to the Chief Technical Assistant for action.

The Chief Technical Assistant was informed also of 15 instances where factories were not furnished with certificates as to adequacy of means of escape in case of fire, as required by section 34 of the Factories Act, 1937.

The Manchester Corporation (General Powers) Act, 1930, enables the Corporation to require means of escape in case of fire in buildings of the warehouse and office class, and flats, hotels, schools, etc., over a certain height. Section 60 of the Public Health Act, 1936, contains somewhat similar powers.

Forty-nine reports in connection with such premises were referred to the Chief Technical Assistant with a view to appropriate action.

In 51 cases, which were reported prior to 1938, the necessary work was done without service of notices.

Five notices served in 1937 were complied with.

Outworkers.

Inspection of premises where outwork is carried on is effected by two female sanitary inspectors, to ensure work being done under sanitary conditions and in premises free from infectious disease.

At the 31st December, 1938, 240 firms in the City employed 1,757 outworkers, of whom 1,403 resided within the City boundaries and 354 in districts of other local authorities, to whom lists giving the necessary particulars were sent.

3,763 inspections of the homes of outworkers were made during the year, and the standard of cleanliness in outworkers' houses was generally satisfactory.

TABLE No. 3.

1.—Inspection of Mechanical and Non-mechanical Factories, etc., under the Factory and Workshop Act, 1901, and the Factories Act, 1937.

Premises (1)	Number of		Occupiers prosecuted (4)
	Inspections (2)	Written Notices (3)	
Factories (with mechanical power)	5,063	13	—
Factories (without mechanical power)	1,923	10	1
† Other premises under the Act (including works of building and engineering construction, but not including outworkers' premises)	3,724	10	3
Total	10,710	33	4

† Electrical stations should be reckoned as factories.

2.—Defects Found.

Particulars (1)	Number of Defects			Number of defects in respect of which Prosecutions were instituted (5)
	Found (2)	Remedied (3)	Referred to H.M. Inspector (4)	
Want of cleanliness (S. 1)	68	68	Cases 1938 prior to 1938 3	3
Overcrowding (S. 2).. .. .	..	..	..	..
Unreasonable temperature (S. 3) ..	..	..	..	..
Inadequate ventilation (S. 4) .. ..	..	..	..	..
Ineffective drainage of floors (S. 6).	..	..	..	..
Sanitary Conveniences (S. 7) {				
Insufficient	10	4	12	..
Unsuitable or defective	37	24	13	..
Not separate for sexes.	5	2	..	..
Other offences (Not including offences relating to Home Work or offences under the sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)	30	16	3	1
Total	150	114	31	4
		145		

Outwork in Unwholesome Premises.

(Section 108 of Act of 1901; Section III. of Act of 1937.)

NATURE OF WORK (1)	Instances (2)	Notices Served (3)	Prosecutions (4)
WEARING APPAREL— Making, etc.	1	—	—

Shops Acts, 1912 to 1936.

Under the provisions of the Shops Act, 1912, every shop must be closed for the serving of customers after 1 p.m. on one week-day in each week, unless exemption has been given or the times of closing have been varied by orders made under the Act.

Forty-six orders for exemption from compulsory closing or for "fixing the closing day," or for "fixing the closing hours," have been made by the City Council, as follows:—

*Orders made by the Local Authority under the Shops Act, 1912,
for Exemption from Compulsory Closing.*

Trade or Business	Date when Order of Exemption was made
Antique and Fine Art Dealers	2nd April, 1913
Artificial Flower Dealers	2nd April, 1913
Bassinette, etc., Dealers	2nd July, 1913
Booksellers and Stationers	8th January, 1913
Brush and Basket Dealers	5th March, 1913
Bazaars.. .. .	2nd July, 1913
Chemists	2nd July, 1913
Drapers	2nd April, 1913
Dress, Costume, and Mantle Dealers	5th February, 1913
Furniture, etc., Dealers	2nd July, 1913
Foreign Stamp Dealers	2nd April, 1913
Furriers.. .. .	5th March, 1913
Grocers and Provision Dealers	7th August, 1912
Glass and China Dealers	2nd April, 1913
Hardware Dealers	5th February, 1913
Hatters	2nd April, 1913
Hosiers and Outfitters	8th January, 1913
Jewellers	8th January, 1913
Knitting Machine Dealers	5th March, 1913
Machinery (Typewriters, etc.) Dealers	1st April, 1914
Music and Musical Instrument Dealers	30th August, 1912
Milliners	2nd July, 1913
Naturalists	2nd July, 1913
Opticians and Instrument Dealers	5th February, 1913
Photographers	2nd July, 1913
Portmanteau, Trunk, Bag, and Fancy Leather Dealers	7th August, 1912
Rubber Goods and Waterproof Dealers	5th March, 1913
Second-hand Booksellers	7th August, 1912
Seeds, Plants, Shrubs, and/or Trees Dealers	5th July, 1933
Theatrical Costumiers	30th January, 1912
Toy and Fancy Goods Dealers	8th January, 1913
Tailors	2nd April, 1913
Umbrella Dealers	2nd April, 1913
Wig Makers, Hair Workers, and Hairdressers' Sundries Dealers	2nd April, 1913
Dealers in Motor Vehicles	7th December, 1938

*Orders made by the Local Authority under the Shops Act, 1912,
for "Fixing the Day" for the Weekly Half-holiday.*

Trade or Business	Date when Order was made "Fixing the Day" for the Weekly Half-holiday	Day Fixed
* Corn and Provender Dealers..	8th January, 1913	Saturday, or (at the option of the shop-keeper), Wednesday
Cloggers	8th January, 1913	Wednesday, or (at the option of the shop-keeper), Saturday
Hairdressers and Barbers ..	7th January, 1914	
Pawnbrokers	5th August, 1914	
Boot and Shoe Dealers	3rd February, 1915	
Sale of Meat (other than Pork or Cooked Meat)	14th July, 1920	
Sale of Meat (other than Pork or Cooked Meat), Wythenshawe Area	25th July, 1934	

* An Exemption Order has been made in this trade fixing the closing hour on Saturday at 2 o'clock.

*Orders made by the Local Authority under the Shops Act, 1912,
for "Fixing the Closing Hour" for the several days of the week.*

Trade or Business	Date when Order was made "Fixing the Closing Hour" for the several days of the week	Closing Hour					
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
Hairdressers and Barbers	21st May, 1924 ..	p.m. 8 0	p.m. 8 0	p.m. 1 0	p.m. 8 0	p.m. 8 0	p.m. 9 0
Boot and Shoe Dealers	28th April, 1915 ..	8 0	8 0	1 0	8 0	9 0	10 30
Sale of Meat (other than Pork or Cooked Meat)	25th October, 1920..	7 0	7 0	1 0	7 0	8 0	7 0
Sale of Meat (other than Pork or Cooked Meat), Wythenshawe Area	25th June, 1934 ..	7 0	7 0	1 0	7 0	8 0	7 0

Shops Act, 1934, Section 10.

During the year, the shops inspectors made 7,443 visits in connection with the Act, and defects were reported in 349 instances, which were dealt with as follows :—

Requirement	Number Deficient	Number remedied as a result of—			Number referred to Chief Technical Assistant for the necessary action
		Verbal Caution	Preliminary Notice	Statutory Notice	
Provision and Maintenance of:—					
Ventilation	10	3	1	—	—
Temperature	145	89	—	13	—
Sanitary Conveniences	163	72	13	—	75
Lighting	—	—	—	—	—
Washing Facilities	20	10	—	1	9
Facilities for taking Meals ..	11	7	—	—	—
	349	181	14	14	84

Extensive investigations were conducted during the year with regard to the conditions of ventilation and temperature at several of the large department stores in the central area of the City.

Kata thermometer readings were taken in selected positions throughout the various floors of the premises. These readings revealed that in many cases the ventilation was inadequate, particularly in basements, restaurant kitchens, and in rooms which had been altered to suit special sales conditions.

In other parts of the various premises the ventilation was found to be satisfactory, or to be only slightly below the required standard.

In all cases letters indicating the conditions found were sent to the management of the firms concerned, and as a result the necessary work was put in hand.

Dirty conditions and minor defects were found in shops in 114 instances, mainly in connection with sanitary conveniences. As a result of verbal cautions, these defects were reported subsequently to have been remedied.

Three applications were received for exemption from the provisions of section 10 of the Shops Act, 1934. One application related to sanitary accommodation and the other two concerned both sanitary accommodation and washing facilities.

The latter cases concerned bookstalls at a railway station, and it was reported that there were special circumstances and that suitable and sufficient sanitary accommodation and washing facilities were conveniently available.

In these cases the necessary certificates of exemption were granted.

Details of the work of the inspectors in connection with the Shops Acts are as follows :—

Number of inspections for all purposes during 1938 ..	12,997
(including 397 visits to wholesale shops and warehouses).	
Number of shops on register, 31st December, 1937 ..	18,972
Number registered during 1938	483
Number discontinued during 1938	189
Number on register, 31st December, 1938	19,266

In 1,108 instances, offences against the provisions of the Shops Acts (excluding section 10 of the 1934 Act), were reported, and were dealt with as follows :—

Offence	Number of intimations sent	* Number of intimations complied with
Failure to exhibit prescribed form <i>re</i> Assistants' Half-holiday	475	482
Failure to exhibit notices and keep prescribed records <i>re</i> employment of young persons ..	337	366
Failure to exhibit prescribed forms with respect to seats for female shop assistants	207	209
Failure to exhibit prescribed forms and keep prescribed records <i>re</i> Sunday Trading ..	89	74
Totals	1,108	1,131

* Includes some intimations sent during 1937.

The provisions of the Shops Acts, so far as they relate to the closing of shops at night and on Sundays, are delegated to the Watch Committee.

During the year, 103 reports were made by the police regarding offences of this character.

In 65 cases the offenders were prosecuted, and in 38 instances they were cautioned.

Tips.

At the end of the year 56 tips were in use in the City, 11 of these belonging to the Cleansing Department, 8 to other departments, and 37 were in private ownership. The use of two tips was discontinued during the year.

127 inspections of Corporation tips and 360 inspections of privately-owned tips were made during 1938.

In 8 instances unsatisfactory conditions were reported. As a result of verbal cautions or letters to the owners the conditions were improved, except in one instance, where infestation by crickets and the combustion of tipped material was reported. In this case it was necessary to obtain a magistrate's order.

Stables.

The number of stables in the City at the 31st December, 1938, was 836, with accommodation for 3,447 horses and 16 ponies and donkeys.

Six new stables were established during 1938 and the use of 46 stables was discontinued.

4,934 inspections were made during the year. In five instances stables were reported to be structurally unsuitable for the purpose and notices were served to discontinue keeping horses.

Defects at three stables were remedied as a result of the service of notices, including one case outstanding from 1937.

In nine other instances minor defects were remedied on request.

Verbal cautions were given in 29 cases, where dirty conditions were found or the removal of manure had been neglected, and on subsequent inspections the conditions were reported to be satisfactory.

Eight preliminary notices and four statutory notices requiring the removal of manure were complied with during the year.

Fouling of Footways by Dogs.

Complaints have frequently been received from citizens and various organisations regarding the nuisance caused by fouling of public footways by dogs.

The Medical Officer of Health was instructed by the Public Health Committee to consider the introduction of byelaws for the prevention of such nuisances.

Enquiries were made with regard to byelaws in operation in other districts and it was ascertained that these byelaws limited action to dogs on leads.

Experience has proved that this limitation tends to nullify the byelaws to some extent and representations were made to the Home Office, who agreed to sanction a byelaw which enables action to be taken against any person allowing a dog in his charge to foul the footway of any street or public place, whether or not such dog is on a lead.

As this byelaw was considered by the Home Office to be of such a far-reaching character it was sanctioned for an experimental period of two years only.

The byelaw is administered in the following manner.

Police officers on duty report infringements to the Chief Constable, who in turn reports to the Medical Officer of Health for submission to the Public Health Committee, who decide as to the action to be taken.

Five offences were reported to the Public Health Committee.

Two of the offenders were cautioned. In the remaining three cases legal proceedings were instituted, resulting in one offender being fined 2s. 6d., and the two other cases being dismissed on payment of costs.

Canal Boats.

There are approximately 11½ miles of canals within the City boundaries, and the canal boats plying on these waterways have continued to receive attention.

1,208 inspections were made to ascertain whether the requirements of the Canal Boats Regulations were being fulfilled, and 19 infringements reported were dealt with as follows:—

Nature of Infringement	Number Reported	Cautioned by Inspector	Included in Notices	Cautions complied with	Notices complied with
Overcrowded	1	1	—	1	—
Boats requiring painting	10	—	10	—	8
Provision of water cask	1	—	1	—	1
General defects	7	—	7	—	6
Totals	19	1	18	1	15

Notices were served for 18 infringements in connection with 12 boats.

Ten notices relating to 15 infringements were complied with, and the remaining two notices involving three infringements were outstanding at the end of the year.

In one instance the Inspector cautioned the master with regard to overcrowding, and on subsequent inspection conditions were reported to be satisfactory.

No case of infectious disease was reported.

Two boats were registered which had been previously on the register of other canal boats authorities and five boats were removed from the register.

On 31st December there were 215 boats on the register, of which 204 were horse-drawn, 9 were driven by oil engine, and 2 were steam-driven.

Removal of Infirm and Diseased Persons.

The Manchester Corporation (General Powers) Act, 1930, empowers the Medical Officer of Health to certify that a person is infirm or diseased, and is incapable of taking care of himself/herself, and is not receiving proper care and attention from others.

The certificate enables the Justices to grant an order for the compulsory removal to hospital of the person concerned.

Nineteen cases of infirm persons were reported during the year.

Twelve were persuaded to enter municipal hospitals and one person died at home.

In the other six cases, Justices' Orders were obtained for compulsory removal to hospital. Two of the persons concerned in these orders decided to enter hospitals of their own accord.

With regard to five outstanding cases from previous years, two persons have removed and are untraceable. The others have been kept under observation.

In all cases arrangements were made for cleansing the houses of the persons concerned.

Exhumations.

Extensive work of exhumation took place during the year at a disused chapel and burial ground in Cannon Street which were involved in a street improvement scheme in the centre of the City.

Six men from the Parks and Cemeteries Department's staff were engaged on the work. They were provided with facilities for personal ablution, sanitary accommodation, and means of heating.

Excavation in the graveyard and chapel proceeded until solid ground was reached, the depth varying from 7 to 9 feet.

130 human skulls were recovered, in addition to other bones. One oak coffin was raised intact from the graveyard. A silver scroll on the coffin lid was dated 1781. Four lead shells of coffins were recovered intact, and numerous pieces of timber coffins were found.

All the excavated ground was dressed with lime and disinfectant.

The whole of the remains were laid in 14 new wooden coffins and were reinterred at Southern Cemetery.

The district sanitary inspector was present during the exhumations and the reinterments.

Seven other reinterments took place during 1938.

In each case the work was supervised by sanitary inspectors to ensure that the work was carried out in a proper manner, with due care and decency and freedom from nuisance.

Rag Flock Acts, 1911-1928.

The department has continued its efforts to secure the cleanly condition of rag flock used in the manufacture of bedding, upholstery, and cushions, despite the defects in existing legislation.

Statement of Action taken under the Rag Flock Acts.

Visits to premises where rag flock is made, used, or likely to be used	604
Statutory samples obtained	127
Samples which conformed to the prescribed standard of cleanliness	117
Samples which failed to conform to the prescribed standard of cleanliness	10
Case not proceeded with because of insufficient evidence to prove that the material has been woven, knitted, or felted	1
Cases reported to the Committee	9
Offenders cautioned as the offences were not serious ..	8
* Prosecution instituted	1
Total fines and costs	£6 13 6
Number of premises where rag flock is made	1
Number of known premises in the City where rag flock may be used in the manufacture of:—	
Bedding	47
Upholstery	101
Cushions	18
Total	166

* Proceedings were instituted against the quilt manufacturer in whose possession the flock was found, and also against the supplier. The summons against the supplier was dismissed but the manufacturer was fined.

In the Annual Reports, 1933 to 1936, reference has been made to the necessity for amending legislation to control the manufacture of all fillings used in bedding, upholstery, and other articles for human use, in order to ensure an adequate standard of purity in these materials.

In the 1937 report a retrospective survey on the subject was given, and certain recommendations put forward. It was also indicated that the Minister of Health had decided to appoint a Departmental Committee to consider the matter. This Committee has now been constituted under the chairmanship of Lord Merthyr. The terms of reference being :—

“To consider whether the Rag Flock Acts and the Regulations made thereunder are adequate to secure proper cleanliness of rag flock used for the manufacture of upholstery, bedding, and other household furniture in Great Britain, or whether it is desirable that the provisions of those Acts and Regulations should be amended, and if so in what respects, and whether all or any of the provisions applicable to rag flock should be applied to materials other than rag flock which may be used in the said articles.”

Several meetings have been held, and evidence has been given by the Medical Officer of Health and the Chief Sanitary Inspector, also by other representatives of Local Government organisations, members of the bedding, upholstery, and flock trades, and by representatives of employees engaged in the industry.

Fabrics (Misdescription) Act, 1913.

Seventy-four visits were made in connection with the provisions of this Act, but no samples were purchased, as in no case would the shopkeeper declare the material to be safe and non-inflammable.

Pharmacy and Poisons Act, 1933.

The provisions of this Act and the Poisons Rules in connection with poisons in Part II. of the Poisons List are administered by the Public Health Committee.

The poisons which may be sold by listed sellers comprise substances which are in common use, for purposes other than the treatment of human ailments, and which are deemed necessary for the public.

Twenty-nine applications were received during the year from persons desiring entry of their names on the local authority's list, and 691 applications for retention of names on the list.

Reports on the premises, etc., were submitted to the Committee, and in no case was it necessary to refuse to enter or refuse to retain a name on the list. There were also five applications in connection with change of address. A total of £183 17s. 6d. was paid in fees to the department.

The selling of poisons was discontinued during the year by 51 persons whose names were contained in the local authority's lists.

1,350 visits were paid for the purposes of investigating applications, inspecting poison books prescribed by the Act, and to unregistered premises.

In 75 cases poisons were being sold in containers not labelled in accordance with the rules. After cautions by the inspectors, the legal requirements were reported to have been fulfilled.

The local authority's list contains the following particulars of listed sellers :—

Type of Business	Persons Listed	
	Sellers	Deputies
Grocers	422	515
Hardware Dealers	147	164
Seedsmen	11	18
Florists	1	1
Horticultural and Agricultural Sundries.. .. .	11	11
Herbalists	17	16
Drug Stores other than Chemists' Shops.. .. .	28	27
Hairdressers	35	39
Miscellaneous	48	31
Total	720	822

Complaints and Departmental References.

Complaints and references to this Section of the Department totalled 10,104.

Of these, 7,362 were from members of the public, the remainder being as under :—

References from	Authority, etc., concerned	References to
1,210	Other departments of the Corporation	4,361
75	H.M. Inspector of Factories	98
54	Other local authorities	354

Reports with regard to 82 streets and passages requiring paving were referred to the Highways Committee by the Sanitary Sub-Committee, and notification of the paving of 76 streets, etc., was received from the former Committee.

Student Sanitary Inspectors and Health Visitors.

In accordance with arrangements approved by the Public Health Committee, the department has afforded during the year facilities for training in practical sanitary inspection to seven student sanitary inspectors and thirty-six pupil health visitors.

TABLE No. 4.
Number of Inspections and Visits.

Primary inspections of dwelling-houses under Housing Act, 1936	5,648	} Dwelling-houses 116,018
Subsequent inspections of dwelling-houses under Housing Act, 1936	13,637	
Inspections by Housing Inspectors—Clearance Areas	6,062	
Visits <i>re</i> removals, disinfection, etc., from Clearance Areas	5,283	
Visits <i>re</i> fumigation of houses in Clearance Areas	1,337	
Visits <i>re</i> fumigation of houses outside Clearance Areas	100	
Visits <i>re</i> demolition of houses in Clearance Areas	1,718	
Visits <i>re</i> abatement of overcrowding, etc.	2,490	
Primary inspections of dwelling-houses under Public Health Acts	10,596	
Subsequent inspections of dwelling-houses under Public Health Acts	29,317	
Primary inspections of infected dwelling-houses	4,486	} Total 69,547
Subsequent inspections of infected dwelling-houses	2,093	
Inspections of dwelling-houses <i>re</i> tuberculosis	11,093	
Other visits <i>re</i> tuberculosis	5,044	
Visits <i>re</i> contacts—infectious disease	425	
Houses let-in-lodgings	11,288	
Tents, vans, sheds	430	
Homes of outworkers	3,763	
Canal boats	1,208	
Bakehouses	3,724	
Food preparation premises	1,572	
Restaurant, etc., kitchens	993	
Butchers' shops and bacon stores	479	
Shops <i>re</i> sale of bread	227	
Markets—Sale of food	65	
Hotels, beer-houses, etc.	169	
Slaughter-houses	30	
Poultry-killing premises	29	
Visits by sampling officers to obtain samples of food or drugs	2,908	
Visits to registered premises—Food and Drugs (Adulteration) Act, 1928	103	
Artificial cream manufacturers	18	
Offensive trades—fish friers	2,627	
Offensive trades—other than fish friers	363	
Observations <i>re</i> effluvia nuisances	779	
Rag and bone dealers' barrows	47	
Works boiler plant <i>re</i> smoke abatement	1,259	
Premises in Central Area <i>re</i> heating, etc., installations	1,134	
Refuse tips—Corporation	127	
Refuse tips—Private	360	
Stables	4,934	
Piggeries	179	
Sanitary accommodation at schools	158	
Sanitary accommodation in parks	1,110	
Public conveniences	1,417	
Land	1,094	
Watercourses	82	
Streets, passages, roadways, and footpaths	3,689	
Exhumations	92	
Factories	5,063	
Shops <i>re</i> Shops Acts	12,997	
Cinemas, theatres, dance and billiard halls	113	
Churches	86	
Premises in connection with Rag Flock Act	604	
Visits in connection with Fabrics Misdescription Act	74	
Other business premises	4,095	
Cesspools	14	
Premises for testing of drains	50	
Visits <i>re</i> Pharmacy and Poisons Act, 1933	1,350	
Visits <i>re</i> infirm persons	50	
Miscellaneous visits	15,283	
Total	185,565	

TABLE No. 5.
**Showing Work Done after Letter or Preliminary Notice has
 been Issued.**

Nature of Work	Letters or Preliminary Notices Issued		Complied with*	
	Letters, etc.	Premises	Letters, etc.	Premises
General repairs to dwelling-houses	2,113	3,893	1,118	1,850
Urgent defects at dwelling-houses which have been ordered to be closed or which are on the list for consideration of the Committee	2,389	3,432	1,654	2,146
Cleansing of dirty or verminous houses.. .. .	20	20	16	16
Houses-let-in-lodgings—				
To provide water supply and sinks	21	21	13	13
To cleanse walls and ceilings—farmed houses ..	178	178	106	106
To provide ventilation to rooms, staircases, or passages	8	8	7	7
To provide washing accommodation	1	1	1	1
To provide proper flushing arrangements to water-closets.. .. .	1	1	1	1
To afford facilities to inspect premises	276	276	276	276
To inscribe name and address of the Medical Officer of Health and/or landlord and/or “permitted number” in the rent book	373	644	296	552
To afford facilities for the inspection and testing of drains covered without inspection	7	8	7	8
Provision, repair, and reconstruction or cleansing of drains	218	228	171	178
Removal of offensive deposits	182	210	130	145
Removal of manure	12	12	8	8
Discontinue keeping animals other than horses	4	4	3	3
To exhibit prescribed form <i>re</i> shop assistants’ half-holiday	475	475	482	482
To exhibit notices and keep prescribed records <i>re</i> employment of young persons in shops	337	337	366	366
To exhibit prescribed forms <i>re</i> seats for female shop assistants	207	207	209	209
To exhibit prescribed forms and keep prescribed records <i>re</i> Sunday trading	89	89	74	74
To provide means and maintain ventilation in shops..	1	1	1	1
To provide means for maintaining a reasonable temperature in shops	66	66	—	—
To provide and maintain suitable and sufficient sanitary conveniences in shops	13	13	13	13
To abate nuisances at tips	20	20	18	18

* Includes some letters or preliminary notices issued in 1937.

Where the work required in letters or preliminary notices has not been executed, statutory notices have since been served.

TABLE No. 6.

Showing Statutory Notices Served and Complied With under the Public Health, Housing, Factory and Workshop Acts, and the various Local Acts and Byelaws.

Work Specified	Number of Notices Served		* Number of Notices Complied with	
	Notices	Premises	Notices	Premises
Repairs to dwelling-houses	1,090	1,439	907	1,111
Repair and maintenance of public sewers	189	532	96	245
Provision, repair, reconstruction, or cleansing of drains and other necessary appliances in connection with buildings	722	1,030	548	708
Provision or repair of water-closets and water-closet chambers in dwelling-houses	302	367	215	243
Paving, flagging, or repairing of yard surfaces	260	356	205	267
Paving, flagging, or repairing of passage surfaces	195	880	129	601
Cleansing of filthy or verminous premises	6	6	6	6
Houses Let-in-lodgings—				
To furnish particulars prior to registration	160	160	160	160
To provide water supply and sinks	8	8	8	8
To cleanse walls and ceilings—farmed houses	53	53	48	48
To provide ventilation to rooms, staircases, or passages	1	1	1	1
To provide washing accommodation	—	—	2	2
To abate overcrowding	1	1	1	1
To provide means for maintaining a reasonable temperature in shops	15	15	13	13
To provide and maintain washing facilities in shops.. .. .	1	1	1	1
Intention to enter premises for purposes of Public Health Acts	375	375	375	375
Repairs to canal boats	12	12	10	10
Repairs to stables and provision of manure stands	2	2	3	3
Discontinue using premises as stables	5	5	5	5
Removal of manure from stables	4	4	4	4
Removal of offensive deposits	94	107	89	98
Remedy defects in bakehouses.. .. .	9	9	10	10
Cleansing of factories	5	5	6	6
To provide sanitary accommodation in factories.. .. .	43	43	46	46
Remedy defects in factories	3	3	4	4
To prevent emission of smoke from chimneys or premises other than dwelling-houses	66	66	43	43
To abate nuisances at tips	2	2	2	2

* Includes some notices served in 1937.

TABLE No. 8.
Public Conveniences—Receipts and Expenditure—Year Ending 31st March, 1939.

SITUATION OF CONVENIENCE	Original Cost of Construction	Wages and Clothing	Electricity, Gas, Water, Repairs, etc.	Amount received for Use of Water closets	Amount received for Use of Lavatories	Amount received for Left Parcels	Amount received from Sale of Sanitary Towels	Commission on Receipts from Weighing Machines	Total Receipts	Total Expenditure	Surplus	Deficit
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
i Albert Square .. Ladies	2730 6 11	307 11 11	97 17 5	191 18 4	7 11 0	3 4 8	10 6 0	1 16 8	214 16 8	405 9 4	..	190 12 8
.. Gents.	2299 7 10	486 7 6	133 5 1	177 11 9	42 15 6	19 19 6	..	..	240 6 9	619 12 7	..	379 5 10
Alexandra Park { Ladies	1560 2 1	{ 220 1 11	34 11 8	19 0 8	0 5 6	..	1 4 0	..	20 10 2	254 13 7	..	234 3 5
.. Gents.		{ 30 16 8	8 11 0	14 16 6	..	..	..	..	14 16 6	39 7 8	..	24 11 2
All Saints .. { Ladies	6383 2 0	{ 296 19 11	147 2 2	100 11 1	4 13 10	1 13 8	3 10 6	2 8 9	112 17 10	444 2 1	..	331 4 3
.. Gents.		{ 486 7 6	141 9 8	85 8 7	19 4 8	7 3 6	..	16 12 2	128 8 11	627 17 2	..	499 8 3
Ardwick Green .. Ladies	605 10 7	292 17 11	39 0 3	79 2 11	5 12 8	1 5 10	2 18 0	0 18 5	89 17 10	331 18 2	..	242 0 4
a Barlow Moor Rd. { Ladies	540 0 0	{ 26 1 8	13 10 2	29 15 8	..	..	..	5 2 6	34 18 2	39 11 10	..	4 13 8
.. Gents.		{ 26 1 8	13 14 11	18 5 0	..	..	..	..	18 5 0	39 16 7	..	21 11 7
c Blackley .. { Ladies	959 8 9	{ 220 1 11	10 3 8	31 17 4	0 8 2	0 15 8	0 15 8	0 11 5	58 12 7	230 5 7	..	171 13 0
.. Gents.	1026 12 9	{ 481 5 6	57 3 1	13 18 8	1 12 2	0 11 2	..	3 16 6	19 18 6	538 8 7	..	518 10 1
Butler Street .. { Ladies	2392 10 8	{ 220 1 11	40 16 11	7 14 6	0 5 4	..	1 13 8	5 16 2	9 13 6	260 18 10	..	251 5 4
.. Gents.		{ 362 3 0	47 15 2	8 19 5	1 1 6	..	..	..	15 17 1	409 18 2	..	394 1 1
l Cheetham .. { Ladies	1573 2 1	{ 220 1 11	50 11 9	18 9 4	0 11 0	..	1 0 0	2 18 4	20 0 4	270 13 8	..	250 13 4
.. Gents.		{ 362 3 0	54 18 4	17 17 9	2 3 2	..	..	..	22 19 3	417 1 4	..	394 2 1
b Chorlton { Ladies	729 9 6	{ 34 14 8	22 15 10	11 16 0	..	..	..	..	11 16 0	57 10 6	..	45 14 6
(Seymour Grove) { Gents.		{ 21 14 8	16 0 9	8 5 4	..	..	..	..	8 5 4	37 15 5	..	29 10 1
k Corporation Street Gents.	2364 10 9	486 7 6	81 0 4	55 8 0	9 1 6	4 17 8	..	3 9 9	72 16 11	567 7 10	..	494 10 11
Dean Lane .. { Ladies	1121 0 0	{ 218 9 2	45 7 3	24 18 10	0 5 10	0 7 0	1 19 10	1 5 3	28 16 9	263 16 5	..	234 19 8
.. Gents.		{ 21 14 8	10 17 9	9 6 5	..	..	..	..	9 6 5	32 12 5	..	23 6 0
Denmark Road { Ladies	1260 5 1	{ 220 1 11	33 9 10	26 4 11	0 18 10	..	1 8 0	6 4 6	28 11 9	253 11 9	..	225 0 0
.. Gents.		{ 21 14 8	11 19 5	20 17 11	..	..	..	..	27 2 5	33 14 1	..	6 11 8

(Continued.)

SITUATION OF CONVENIENCE	Original Cost of Construction		Wages and Clothing		Electricity, Gas, Water, Repairs, etc.		Amount received for Use of Water closets		Amount received for Use of Lavatories		Amount received for Left Parcels		Amount received from Sale of Sanitary Towels		Commission on Receipts from Weighing Machines		Total Receipts		Total Expenditure		Surplus		Deficit		
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
j Piccadilly	887	12 9	390	1 4	189	15 2	941	15 0	53	18 6	77	6 8	25	15 4	7	4 10	1106	0 4	579	16 6	526	3 10	..	..
{ Ladies	1384	14 5	610	8 3	296	18 6	523	1 7	152	2 10	191	9 10	..	..	82	15 4	949	9 7	907	6 9	42	2 10	..	..
{ Gents.	1110	1 10	{ 34	14 8	28	1 5	13	15 2	..	..	..	..	..	..	..	..	14	11 11	62	16 1	..	..	48	4 2
Queen's Road	1631	9 3	{ 21	14 8	35	3 7	17	1 7	..	..	..	..	..	..	..	..	25	14 9	56	18 3	..	..	31	3 6
{ Ladies	1631	9 3	459	1 6	127	5 11	70	2 0	10	9 2	7	11 10	..	..	3	0 0	91	3 0	586	7 5	..	..	495	4 5
{ Gents.	81	17 4	{ 28	4 8	11	7 0	17	8 10	..	..	..	..	..	..	5	1 8	17	8 10	39	11 8	..	..	22	2 10
e Southern Cemetery { Ladies	1615	7 6	{ 28	4 8	11	0 9	6	15 3	..	..	..	..	..	..	..	..	11	16 11	39	5 5	..	..	27	8 6
{ Gents.	1615	7 6	339	1 0	88	10 1	52	14 2	8	12 1	..	..	..	..	4	19 7	66	5 10	427	11 1	..	..	361	5 3
South Street (Gents)	1605	16 11	296	19 11	136	12 5	182	18 3	6	5 10	12	9 4	12	1 6	1	15 6	215	10 5	433	12 4	..	..	218	1 11
Stevenson Square { Ladies	1724	16 11	486	7 0	142	16 11	135	6 7	41	19 4	42	16 6	..	..	8	18 7	229	1 0	629	3 11	..	..	400	2 11
{ Gents.	630	6 10	690	10 5	133	12 5	526	11 3	42	2 10	121	18 4	21	11 6	7	11 7	719	15 6	824	2 10	..	..	104	7 4
Victoria Buildings (Ladies)	2196	15 3	486	6 11	158	2 3	175	6 11	43	9 4	56	3 5	..	..	12	15 2	287	14 10	644	9 2	..	..	356	14 4
Victoria Street (Gents)	86	4 1	12	12 8	3	9 11	5	8 2	..	..	..	..	..	..	..	..	5	8 2	16	2 7	..	..	10	14 5
Wellington Hotel (Gents)	1288	13 7	{ 31	9 8	17	2 10	20	5 0	..	..	..	..	..	..	..	..	21	2 0	48	12 6	..	..	27	10 6
West Point	1516	19 3	{ 31	9 8	17	18 1	12	4 4	..	..	..	..	..	..	..	..	19	6 8	49	7 9	..	..	30	1 1
{ Ladies	1516	19 3	{ 223	19 10	56	10 6	37	19 1	0	17 6	0	15 4	2	1 0	1	6 5	42	19 4	280	10 4	..	..	237	11 0
{ Gents. .. .. .	..	..	{ 34	14 8	16	10 7	14	1 0	..	..	..	..	..	..	8	4 5	22	5 5	51	5 3	..	..	28	19 10
Public Urinals .. .. .	..	..	1950	4 7	958	5 5	..	..	..	..	..	..	..	..	6	10 2	6	10 2	2908	10 0	..	..	2901	19 10
{ Ladies
{ Gents.
Proportion of Cost of Maintenance of Joint Tram Shelters, etc., received from Transport Department	106	16 5	106	16 5
Proportion of Cost of Maintenance of Public Conveniences, Chorlton (Seymour Grove), received from Stretford M.B.
Sundry Receipts
TOTALS	55	355 11	5	14	485	4 7	4563	12 11	586	17 5	557	15 11	102	8 6	280	11 1	6378	2 1	19161	6 9	725	1 8	13508	6 4	

a Joint Tramway Office and Convenience. Cost of erection and maintenance apportioned between Transport and Public Health Committees.

b Stretford M.B. paid half cost of construction and maintenance and received half receipts.

c Total receipts include £25 rent for portion of premises.

d Total receipts include £51 6s. 3d. rent for portion of premises.

e Transport Committee paid half cost of construction and working expenses and received half receipts.

f Total receipts include £13 15s. rent for portion of premises.

g Total receipts include £40 rent for portion of premises.

h Expenditure includes £19 10s. rent for premises.

Receipts include—i £19 10s.; j £6 10s.; k £19 10s.; l £1 6s. 8d.; m £21 10s. for privileges to Transport Department.

HOUSING ACT, 1936. SLUM CLEARANCE.

Representations.

During the year nine areas in various parts of the City, embracing a total of 1,076 houses and 38 individual houses found to be unfit for human habitation, have been represented to the City Council, namely :— Goodwin Square, Oldham Road, No. 2, Broom Lane, Werneth Street, Monday Street, Enoch Street, Ruth Court, Fog Lane, and Oldham Road (New Cross).

Inquiries.

One inquiry has been held by the Ministry of Health, namely, that into the New Cross Clearance Area, totalling 1,870 dwelling-houses.

Orders have been confirmed by the Ministry of Health for 2,706 dwelling-houses in respect to Old Moat Lane, Sandy Lane, New Cross, and Ardwick Clearance Areas, and certain individual houses.

Full particulars and dates are appended in Table I.

Preparation of Evidence for Inquiries.

Early in the year the evidence for the inquiry into the New Cross Clearance Area was completed, and full preparations were made later for the inquiries into the Bradford Road and Hutchins Street Clearance Areas.

In this connection it should be stated that, in addition to sending out to all persons having an interest in the properties involved in clearance areas the principal defects as required by the Act, every interested person is supplied with a copy of the complete detailed evidence as to the defects and bad arrangement exhibited by the properties. This procedure involves a considerable amount of work, but it is outbalanced by its usefulness to the owners or their representatives in preparing their objections.

Demolition of Properties.

(a) In clearance areas	1,718
(b) Without formal action	136
(c) Closure of parts of dwelling-houses	2
	1,856
Displacement of persons from clearance areas	6,836

Ministry of Health's return (Form 256), showing the number of dwelling-houses demolished and the number of persons displaced to the end of 1938 in respect of clearance areas and individual houses :—

	Dwelling-houses Demolished	Persons Displaced
Clearance Areas	5,924	24,687
Individual houses	54	198
In addition to this return, the following houses have been demolished without formal action	351	1,404
Totals	6,329	26,289

Removal of families from Clearance Areas and families from vermin-infested houses not in Clearance Areas to Corporation houses.

The number of families removed from clearance areas was 1,688 ; of these 961 were removed at the expense of the City Council to Corporation houses.

727 families themselves found suitable accommodation other than in Corporation houses, and 50 of these were moved at the cost of the City Council ; the remainder met their own removal expenses.

Full particulars of the areas from which they were removed are appended in Table II.

In addition 359 families were removed, at the request of the Director of Housing, from vermin-infested houses not in clearance areas to Corporation houses. Each of these families paid thirty shillings towards the cost of the removal, the disinfection of the furniture being at the cost of the City Council.

Eradication of Bed Bugs.

The eradication of bed bugs by means of hydrogen cyanide fumigation is now controlled by the Hydrogen Cyanide (Fumigation) Act, 1937, which empowers the Secretary of State to make regulations controlling its generation, use, and disposal of residue of the materials used in the process of fumigations.

The Hydrogen Cyanide (Fumigation of Buildings) Regulations, 1938, were issued on the 19th December, 1938, and came into force on the 1st February, 1939.

The regulations are very similar to the procedure and practice which have been carried out by this department since 1932, but, in addition to supervising fumigations which are carried out for the Local Authority, the regulations specify that fumigators must notify the Medical Officer of Health of any fumigation taking place in his area.

The regulations detail the length of training necessary before operators are qualified to undertake fumigation ; the measures to be taken to ensure safety before, during, and after the liberation of cyanide ; and prescribe registers which must be kept by the fumigators.

The following statement is included, to comply with Circular 1728 of the Ministry of Health, dated 25th October, 1938, with regard to the action taken for the eradication of bed bugs in dwelling-houses :—

(1)

Houses	Number found to be infested, 1938	Number of Houses Disinfested includes Carry-over from 1937
Council	317	306
Other	1,244	1,337
	1,561	1,643

(2) Of the houses disinfested during the year, 280 Council houses and 1,246 other houses were fumigated with hydrogen cyanide ; a total of 1,526 houses. The remaining 117 houses were treated with sulphur or contact insecticides by the owners.

(3) The methods employed for ensuring that the belongings of tenants are free from vermin before removal to Council houses (or houses owned by private persons) :—

All furniture and belongings are fumigated by hydrogen cyanide whilst in transit between the clearance area and the new accommodation.

All bedding, pillows, cushions, etc., are disinfested by the application of steam.

(4) Whether the work of disinfestation is carried out by the Local Authority or by a contractor—

Hydrogen cyanide fumigation is done by contract with fumigation undertakers. All disinfestation by steam is done by the Corporation.

(5) Measures taken by way of supervision or education of tenants to prevent infestation or re-infestation after cleansing—

The following educational leaflet is given to every householder when the house has been allotted to them, and steps are taken to see that the details are observed.

Following the disinfestation, each family is visited at the new house by an Inspector of the Public Health Department, who tenders verbal advice and instruction.

PUBLIC HEALTH DEPARTMENT, HOUSING SURVEY SECTION,
TOWN HALL, MANCHESTER, 2.

INFORMATION FOR THE GUIDANCE OF FAMILIES IN CLEARANCE AREAS
OR OF DWELLING-HOUSES UNFIT FOR HUMAN HABITATION, WHO
HAVE BEEN ALLOTTED A CORPORATION HOUSE, OR WHO HAVE FOUND
OTHER RE-HOUSING ACCOMMODATION.

The following procedure has been designed to prevent insect pests being transferred during the removal from old houses to new accommodation :—

1. The new house must be cleaned by you and should be ready for inspection on the day before the removal, which takes place on
.....
2. Nothing but articles used for cleaning purposes may be taken direct to the new house. Other articles which are required must be placed in the furniture van. Unwanted articles should be left in the house and not be sold or given away.
3. The furniture van will arrive about 7-30 a.m. No help is required during the removal, but it will be of great assistance and speed up the removal if all pots, glassware, etc., are securely packed by the family prior to the removal.

Special Notice.

- (a) Pillows, bolsters, and cushions should not be packed in boxes, drawers, or chests, but left loose.
- (b) Coal must be reduced to a minimum, as only small quantities in bags or boxes can be removed with the furniture.
- (c) Foodstuffs should be reduced to a minimum, and must not be placed in the removal van. Food must be carried to the new house by the family.

4. When the van has left the house it is advisable, particularly during the cold weather, that the family should avail themselves of the facilities at the Clinic adjoining Monsall Hospital, where FREE BATHS AND REFRESHMENTS are provided whilst the personal clothing worn on the day of removal is being treated.

Workers can attend the Clinic either before or after work, before proceeding to the new house.

The Clinic can be reached by any tram or bus via Oldham Road or Conran Street ; by bus 54 from Stevenson Square which stops at Monsall Hospital Gates, or by bus 53 which stops at Monsall Street, Queen's Road.

When advantage is not taken of these facilities, clothing worn on the day of removal should be changed as soon as possible after the return of the fumigated clothing which accompanies the furniture. This clothing should then be placed in a parcel or pillow slip for collection and fumigation on the following day.

5. *At the New House.*

After the furniture has been delivered, ONE WINDOW IN EACH BEDROOM MUST REMAIN OPEN for the first night, to remove the final traces of the fumigant.

PLEASE NOTE.—Every care is exercised during the removal. Claims for loss cannot be entertained unless accompanied by an inventory signed by the removal contractor's workman.

R. VEITCH CLARK,
Medical Officer of Health.

Abatement of Overcrowding.

Housing (Financial Provisions) Act, 1938.

At the beginning of the year 2,322 houses in the City were overcrowded ; and during the year 257 fresh cases of overcrowding occurred, due to the advancing age of children or to an increase in the number of children.

In view of the above Act coming into force on 1st January, 1939, special efforts were put forth during the months of November and December to ascertain as nearly as possible the outstanding balance of overcrowded houses in the City, so that a correct detailed list could be forwarded to the Director of Housing of cases where landlords or the tenants themselves had been unable to effect an abatement. For this purpose every overcrowded house was visited by a housing inspector during this period.

As stated in previous reports on the completion of the survey in 1936, cards were despatched to every owner or house agent in the City, giving them the "permitted number" of occupants for the houses under their control. The overcrowded houses were distinguished on these cards by encircling the street number in red. In this way the overcrowding position was made known to all concerned. The response to the information was immediate. Many owners or agents forwarded lists of properties where they had been able to effect abatement, whilst the tenants themselves were made acquainted with the position and sought alternative accommodation of sufficient size to meet the needs of their families.

Following the success of this early action a circular-letter accompanied by lists in duplicate of overcrowded houses has been forwarded to every owner or house agent on each succeeding quarter day. The returned lists, after confirmation by visits of housing inspectors, show that 1,641 cases of overcrowding have been abated during the year, leaving a balance of 938 cases yet to be relieved.

Out of a total of 4,881, which includes 3,957 discovered at the time of the survey and 924 which have become overcrowded in the interval due to the advancing age of the children, 3,943 cases of overcrowding have been abated since the completion of the survey in October, 1936.

The method of abatement which has been adopted by owners and house agents has been to fit their overcrowded families into houses possessing sufficient accommodation.

Stated briefly, the problem of overcrowding as it relates to the City is one of a large amount of under-occupation of housing accommodation and a small amount of over-occupation. To illustrate this fact, while there were approximately 4,000 houses overcrowded at the time of survey there were also over 20,000 houses occupied by one person only and a further 46,000 occupied by two persons. The extra available accommodation in these two classes alone would take from one-half to ten additional persons per house.

The following statement is included to comply with Circular 1728 of the Ministry of Health, dated 25th October, 1938 :—

Housing Act, 1936. Part IV.—Overcrowding.

(a) (i.) Number of dwellings overcrowded at the end of the year	938
(ii.) Number of families dwelling therein	938
(iii.) Number of persons dwelling therein	6,898
(b) Number of new cases of overcrowding reported during the year	257
(c) (i.) Number of cases of overcrowding relieved during the year	1,641
(ii.) Number of persons concerned in such cases ..	10,358
(d) Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	None

Summary of Work done.

Visits paid by the Housing Staff during the year :—

Clearance Areas.—Primary inspections	1,942
„ „ Re-inspections or visits	4,120
„ „ Ascertainment of families to be removed for the Town Clerk	1,320
„ „ arranging the removal of families	1,323
„ „ Supervising the removal of furniture from old houses	1,32
„ „ Supervising the delivery of furniture to the new houses, giving advice and instructions to tenants	1,320
„ „ Fumigation of houses	1,137
„ „ Demolition of property	1,718
Compulsory Purchase Orders.—Entering and taking possession on behalf of the Corporation, as authorised by the Town Clerk, in accordance with the notices of entry served upon the owners and occupiers	283
Outside Clearance Areas.—Fumigation of houses	100
Abatement of overcrowding and measurement of houses for permitted numbers	2,490
Total	<u>17,073</u>

TABLE I.
Housing Act, 1936. Parts II. and III.
Clearance Areas and Individual Houses represented to the City Council.

Area	Represented Premises		Premises in the Area at the Making of the Order		Exclusions by the Ministry				Premises confirmed by the Ministry		Population	Families to be Rehoused	Date		Confirmation Order
	Dwelling-houses	Business Premises	Dwelling-houses	Business Premises	Unconditionally	Conditionally	Dwelling-houses	Business Premises	Dwelling-houses	Business Premises			Representation	Enquiry by Ministry of Health	
Hulme ..	1,076	62	1,076	62	15	—	—	—	1,061	42	4,397	1,243	27-7-32	25-7-33	7-11-33
Red Bank ..	366	17	366	17	1	—	—	—	365	7	1,701	531	8-9-33	11-9-34	8-11-34
West Gorton ..	390	26	391	26	16	—	—	—	375	21	1,833	444	8-9-33	12-6-34	29-9-34
Collyhurst ..	1,848	72	1,848	72	—	—	—	—	1,848	72	7,897	2,019	8-9-33	30-5-34	29-9-34
Ancoats ..	998	47	998	47	14	—	—	—	940	16	4,020	1,065	8-9-33	29-5-34	12-1-35
Miles Platting ..	712	47	721	32	8	—	—	—	688	9	2,615	691	18-9-34	22-10-35	27-2-36
Roger Street ..	32	3	32	—	—	—	—	—	32	—	145	35	29-3-35	31-3-36	31-8-36
Pottery Lane ..	51	3	52	—	—	—	—	—	52	—	197	55	29-3-35	31-3-36	31-8-36
Collyhurst II. ..	443	53	446	—	41	—	—	—	381	—	1,435	418	8-4-35	31-3-36	31-8-36
Wellington Street ..	22	—	22	—	—	—	—	—	22	—	65	22	16-9-35	31-3-36	31-8-36
St. Michael's ..	290	34	289	—	9	—	—	—	275	—	1,214	427	15-10-35	14-7-36	31-10-36
Ardwick ..	909	42	907	1	37	—	—	—	863	1	3,698	1,071	4-12-35	23-11-37	30-6-38
Culcheth Brow ..	18	—	18	—	—	—	—	—	18	—	80	20	12-12-35	6-10-36	3-11-36
Cresswell Street ..	12	—	12	—	—	—	—	—	12	—	53	12	9-1-36	6-10-36	3-11-36
Joddrell Street ..	10	—	10	—	—	—	—	—	10	—	34	13	14-2-36	6-10-36	3-11-36
Stuart Street ..	102	—	102	—	2	—	—	—	100	—	375	100	14-2-36	6-10-36	3-11-36
Old Moat Lane ..	14	—	14	—	—	—	—	—	14	—	39	15	14-2-36	23-11-37	27-5-38
New Cross ..	1,855	62	1,870	1	23	—	—	—	1,787	—	7,273	2,032	12-3-36	22-2-38	30-11-38
Dean Street ..	13	2	13	—	2	—	—	—	13	—	26	9	24-6-36	10-8-37	19-10-37
Sandy Lane ..	6	—	6	—	—	—	—	—	4	—	10	3	13-1-37	—	—
Bradford Road ..	1,858	—	1,841	—	—	—	—	—	—	—	7,070	1,954	10-6-37	—	—
St. George's ..	1,188	—	1,183	—	—	—	—	—	—	—	4,156	1,181	19-10-37	—	—
Hutchins Street ..	61	—	61	—	—	—	—	—	—	—	220	62	14-12-37	—	—
Harpurhey ..	284	—	284	—	—	—	—	—	—	—	1,042	299	14-12-37	—	—
Moston Lane ..	3	—	3	—	—	—	—	—	—	—	14	3	14-12-37	—	—
Oldham Road No. 1 ..	3	—	3	—	—	—	—	—	—	—	12	3	14-12-37	—	—
Goodwin Square ..	2	—	2	—	—	—	—	—	—	—	1	3	11-3-38	—	—
Oldham Road No. 2 ..	15	—	15	—	—	—	—	—	—	—	8	22	26-4-38	—	—
Broom Lane ..	13	—	—	—	—	—	—	—	—	—	37	10	26-4-38	—	—
Werneth Street ..	10	—	—	—	—	—	—	—	—	—	29	11	17-6-38	—	—
Monday Street ..	45	—	—	—	—	—	—	—	—	—	174	70	4-11-38	—	—
Enoch Street ..	31	—	—	—	—	—	—	—	—	—	88	32	4-11-38	—	—
Ruth Court ..	11	—	—	—	—	—	—	—	—	—	32	14	4-11-38	—	—
Fog Lane ..	10	—	—	—	—	—	—	—	—	—	33	9	25-11-38	—	—
Oldham Road (New Cross)	939	—	—	—	—	—	—	—	—	—	3,499	998	9-12-38	—	—
Individual Houses ..	95	—	—	—	—	—	—	—	95	—	309	84	—	—	—
Total ..	13,735	470	12,578	258	168	172	90	—	8,955	168	53,831	14,980	—	—	—

TABLE II.

Families and Persons Rehoused from Clearance Areas and Individual Houses. Part II. and Part III. of the Housing Act, 1936 up to 31st December, 1938.

Removals.

Name of Clearance Area	At Cost of City Council				At no Cost to the City Council		TOTAL	
	Verminous—Disinfested during Transit		Non-verminous—Transferred Without Disinfestation		Removal Effected Privately			
	Families	Persons	Families	Persons	Families	Persons	Families	Persons
Hulme	844	3,415	60	191	167	643	1,071	4,249
Collyhurst	1,752	6,785	8	20	264	1,109	2,024	7,914
West Gorton ..	352	1,382	6	13	52	367	410	1,762
Red Bank	177	633	—	—	351	1,065	528	1,698
Aneoats.. .. .	833	3,154	1	3	210	851	1,044	4,008
Miles Platting ..	584	2,202	—	—	108	410	692	2,612
Roger Street ..	24	98	—	—	11	47	35	145
Pottery Lane ..	48	161	—	—	5	26	53	187
Wellington Street.	10	30	12	32	—	—	22	62
Culeheth Brow ..	13	53	—	—	5	27	18	80
Cresswell Street ..	9	39	—	—	3	14	12	53
Joddrell Street ..	6	22	1	3	5	11	12	36
Stuart Street ..	85	316	—	—	7	59	92	375
Collyhurst II. ..	342	1,140	1	2	75	293	418	1,435
St. Michael's ..	124	480	—	—	303	734	427	1,214
Old Moat Lane ..	5	19	—	—	—	—	5	19
Ardwick	264	976	5	12	84	312	353	1,300
New Cross	1	4	—	—	—	—	1	4
Sandy Lane.. ..	—	—	2	6	—	—	2	6
Dean Street ..	—	—	—	—	9	26	9	26
Individual Houses.	18	74	17	63	21	84	56	221
Totals	5,491	20,983	113	345	1,680	6,078	7,284	27,406

In addition, the following families, whose effects were verminous, have been removed and disinfested at the request of the Director of Housing from houses not situated in Clearance Areas to Corporation houses.

1932	10	69
1933	16	95
1934	140	691
1935	124	578
1936	231	1,032
1937	387	1,675
1938	359	1,607

Total 8,551 33,153

STATEMENT OF THE WORK OF THE SPECIAL INSPECTORS, 1938.

The following statement shows the work done by the two Special Inspectors during the year under review, and comments on certain sections of the work are appended :—

Number of Visits re :—

Shops Act, 1934	24
Food poisoning	101
Export of washed rags, paper, etc.	75
Vermin—Infested premises	169
Institutions	48
	— 217
Air Raid Precautions	48
Nuisances	9
Infectious Diseases	31
Public Health Laboratory	76
Public Health Exhibitions	64
Water purification in swimming baths	198
Nursing Homes	64
Miscellaneous	68

Samples submitted to the Public Health Laboratory :—

Water from Swimming Baths and Pools for—

Bacteriological examination	97
Substances in Food Poisoning Cases	22
Samples of Cases of Infectious Disease	7

Tests of Water from the Swimming Baths and Pools—

Carried out by the Special Inspectors	182
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Swimming Baths.

The sampling of water from swimming baths has been continued throughout the year both at the public baths and the privately-owned establishments. The same system of sampling has been followed, and tests for alkalinity and the amount of free chlorine present in the water have been carried out by the Special Inspectors.

A table is given showing the results of the examinations made, with comparative figures for the period 1934 to 1937.

Comparison of Results of Samples of Water from Corporation Swimming Baths.

	January, 1934, to January, 1936		January, 1937, to December, 1937		January, 1938, to December, 1938	
	Number of Samples	Percentage	Number of Samples	Percentage	Number of Samples	Percentage
Number of samples in which—						
B. Coli were found in 1 cc...	15	10.4%	2	3.3%	—	—
B. Coli. were found in 10 cc...	37	25.7%	6	10.0%	2	3.5%
B. Coli were found in 50 cc...	—	—	—	—	1	1.75%
B. Coli were found in 100 cc...	42	29.2%	—	—	1	1.75%
B. Coli were absent in 100 cc.	50	34.7%	52	86.7%	54	93.0%
Total	144	—	60	—	58	—
Number of samples in which free chlorine was absent or present only as a trace ..	128	89%	21	35%	12	20.6%
Average count of aerobic organisms grown on agar from 1 cc. of water (48 hours at 37° C.)	100,000		57,000		31,000	
Highest count	Over 2,000,000		328,000		435,000	
Lowest count	2		0		0	

The corresponding figures for privately-owned swimming baths used by the public are as follows. The years 1936 and 1937 are given for comparison:—

Comparison of Results of Samples of Water from Privately-owned Swimming Baths.

	January, 1936 to December, 1936		January, 1937, to December, 1937		January, 1938, to December, 1938	
	Number of Samples	Percentage	Number of Samples	Percentage	Number of Samples	Percentage
Number of samples in which—						
B. Coli were found in 1cc. ..	1	6.25%	2	12.5%	—	—
B. Coli were found in 10 cc. ..	4	25.0%	—	—	1	6.7%
B. Coli were found in 50 cc. ..	1	6.25%	—	—	—	—
B. Coli were found in 100 c.c..	2	12.5%	3	18.75%	—	—
B. Coli were absent in 100 cc.	8	50.0%	11	68.75%	14	93.3%
Total	16	—	16	—	15	—
Number of samples in which free chlorine was absent or present only as a trace ..	7	43.75%	5	31.25%	1	6.7%
Average count of aerobic organisms grown on agar from 1 cc. of water (48 hours at 37° C)	42,000		70,000		1,758	
Highest count	304,000		530,000		13,500	
Lowest count	0		0		0	

It will be seen that in both the Corporation and the privately-owned baths the standard of cleanliness has further improved and a low B. coli count is maintained. The control of the plant at the various baths has been more uniform, and the average aerobic counts would have been even lower than the figures shown but for temporary breakdowns at one or two of the baths.

At one of the privately-owned baths representations were made for the installation of a proper dosing apparatus for coagulants and chlorine. This was provided and has fully justified itself in the results obtained. At another private bath, previously operated on the "fill and empty" method, a modern filtration plant is to be installed following a recommendation from the Medical Officer of Health.

One fact which emerges from the results of the sampling is that where proper control is regularly maintained the older purification plants are as capable of securing a satisfactory standard as the more recent installations, even though they are subjected to heavy bathing loads.

The sampling and examination of water from the swimming pools in the parks has been continued. The results have not been such as necessitated any action by this department.

Vermin.

Throughout the year the Special Inspectors have been called upon to advise with regard to the extermination of pests both in domestic and industrial premises. Where necessary the entomologist at the Manchester University has co-operated with the identification of specimens submitted.

With regard to cockroaches, as an experiment it was arranged with the Housing Director that sodium fluoride should be applied in all complaints of cockroach infestation on Corporation housing estates. To secure proper control the powder was applied by the Housing Department's staff and observations taken of the results. 70 cases were treated and in 46 there was no recurrence of infestation; in 6 cases the results were indeterminate; and in 18 cases though diminution of infestation was reported the houses could not be said to be free from vermin. An analysis of the results obtained indicates that where the co-operation of the tenant can be secured this method of extermination is effective.

Export of Washed Rags, etc.

Inspection of these materials is carried out as a hygienic measure properly coming within the scope of the department, and to assist business firms in attaining the standard of cleanliness required by the regulations imposed by importing countries of such materials.

Inspections are made periodically to supervise the type of plant and its use, and, on request, to see and pass consignments before dispatch. Each bale is certified by being stencilled with the following mark :—

M.O.H. alongside the usual shipping marks.
M/CR

The following table gives the quantities of materials thus dealt with, and is some indication of the amount of work involved :—

	1938	1937	1936	1935	1934
	Tons	Tons	Tons	Tons	Tons
New fents	23	2	3	4	—
Meat cloths	21	40	20	24	22
Washed rags	213	104	131	58	16
Hemp twines and sacking ..	12	20	—	65	86
Waste paper	29	—	57	280	—
Clippings and artificial silk ..	—	102	—	—	—
Second-hand clothing	1	1	1	5	1

RATS AND MICE (DESTRUCTION) ACT, 1919.

Complaints.

Infested premises and adjacent premises are inspected to ascertain the extent and source of infestation. Concerted action by occupiers of adjoining infested premises is arranged, and in boundary cases the co-operation of the adjoining authority is secured.

The number of primary complaints received was 470, involving 2,021 premises. In addition, 66 complaints of further infestation at premises already under observation were investigated, making a total of 536 complaints dealt with in the year.

Conditions Found.

Of the 2,021 premises inspected for the first time, 1,520 were found to be infested with rats, 371 infested with mice, and at 130 premises no evidence of rats or mice could be found.

At rat-infested premises in 463 cases (30·46 per cent.) rats had obtained ingress to the buildings, and at 1,057 premises (69·54 per cent.) infestation was confined to yards, passages, land, and gardens.

The conditions found and the type of premises infested are shown in Table I.

Causes of Infestation.

Defective and disused drains and sewers were responsible for infestation in 66·91 per cent. of premises infested with rats, in 69 per cent. of the premises where rats had obtained ingress to the interior of buildings, and 66 per cent. of premises where infestation was confined to yards, passages, etc.

A detailed classification of causes of infestation will be found in Table II.

Nature of Business carried on at Infested Premises.

Details of the nature of premises infested are shown in Table III.

Repressive Measures.

Occupiers are encouraged to carry out the trapping of rats themselves, but in premises where occupiers cannot carry out such measures effectively, or where the premises are badly infested, the employment of an experienced rat-catcher is advised. In necessitous cases, traps are loaned to occupiers. Advice is given by the visiting officer as to the measures to be adopted.

Repeated revisits are made to ensure that the measures are being carried out in an efficient manner, the Rat Officers having made 3,073 such revisits during the year.

Destruction.

It will be appreciated that under this heading it is only possible to state the numbers of rodents destroyed in cases brought to the notice of the Department, which are as follows :—

Rodents destroyed by the public	..	697 Rats	146 Mice
Five professional rat-catchers in	276		
premises (rodents destroyed)	.. ..	2,912 Rats	1,393 Mice
Poison baits laid by public and rat-catchers	.. ..		14,030
Poison baits taken	.. .. .		6,507

The various Corporation departments have also carried out destruction measures in lands, buildings, and sewers under their control :—

Poison baits laid	.. .. .	66,215
Poison baits taken	.. .. .	45,652
Rats killed by means other than poison	.. .. .	3,666
Mice destroyed	.. .. .	306

64,099 of the poison baits were laid in the City sewers by the Highways Department.

Prevention of Re-Infestation.

Repressive measures which do not include the proofing of the building against the ingress of rodents can only be considered as of a temporary nature. Among these measures may be mentioned :—

- (1) Remedying of defects found in the drainage system.
- (2) Sealing of open pipe tracks and holes in walls, floors, and ceilings, and where necessary the fixing of rat guards on rainwater, soil, and wastepipe stacks to prevent rats climbing on to roofs or upper floors.
- (3) Guarding of basement windows, cellar areas, or ventilation openings at or near ground level.
- (4) Protection of short or gnawed door bases with sheet metal or other suitable material.

Rat proofing was carried out at 931 premises during 1938, at 348 premises by the occupiers, at 562 premises by the owners, and at 21 premises by rat-catchers.

The condition of the structures of many of the older buildings in the City is such that to make them rat-proof would necessitate reconstruction. In such cases palliative methods only are practicable.

Measures carried out.

During the year 2,296 premises have been cleared of rats and mice. The position at the end of the year in connection with 2,974 other premises, dealt with for the presence of rats or mice, was as follows :—

	<i>Premises</i>
Repression work in progress by rat catchers	188
Repression work in progress by owners or occupiers	779
Awaiting reports on condition of drains or sewers..	424
Drain or sewer work done, under observation ..	686
Condemned property	193
Other premises where repressive measures have been carried out and which are still under observation	704
Total	<u>2,974</u>

Particulars of the measures carried out during the year are detailed in Table IV.

National Rat Week, 7th to 12th November, 1938.

In accordance with a request contained in a circular letter from the Ministry of Agriculture and Fisheries, relative to National Rat Week, the action taken and the results attending such action are as follows :—

Rat Week Propaganda.

Two hundred large posters, informing the public of their obligations under the Act and giving advice on methods to employ for the repression of rats and mice, were exhibited on hoardings and public places in the City, and five hundred smaller posters were displayed in Corporation tramcars and buses from 4th to 12th November. Suitable announcements were inserted in eleven newspapers. Editorials, on the object of National Rat Week, were arranged with the local press, and a full page article was published in the October issue of "Better Health," 10,000 copies of which are distributed monthly in the City. One thousand circular letters were sent to farmers and occupiers of other premises peculiarly liable to infestation by reason of the nature of the business carried on and two hundred letters were sent to chemists and hardware dealers asking them to make a special show of approved poisons and traps, and all Corporation departments were requested to co-operate.

Work directly arising from Rat Week Propaganda.

	National Rat Week, 1938	Weekly Average (excluding National Rat Week)
Number of complaints received from 1st to 12th November	48	10
Premises visited in connection with complaints— In Rat Week 78 In week following Rat Week 66 —	144	39
Revisits to other premises known to be infested	91	56·5

Conditions found at premises visited on complaints arising out of Rat Week propaganda.

	Business Premises	Dwelling-houses	Totals
Interior Infestation	31	15	46
Exterior Infestation	20	16	36
Mice only	12	38	50
No evidence	4	8	12
Totals	67	77	144

Advice was given in all cases either by letter or verbally by the investigating officer.

Five professional rat-catchers reported having destroyed 388 rodents in the City during National Rat Week, and that 697 of 1,260 poison baits laid in infested premises were taken.

Repression work by Corporation Departments during Rat Week.

The Highways, Rivers, Markets, Cleansing, Parks, and other Departments made extra efforts for the destruction of rats in the lands and premises under their control, for example, 15,430 poison baits were laid in the sewers, 9,275 (60 per cent.) of the baits laid being taken.

TABLE I.

Summary of Conditions Reported and Number of Premises Visited for the First Time during the Year 1938.

Interior Infestation				Exterior Infestation		No Evidence of Infestation	
Rats		Mice		Business Premises	Dwelling-houses	Business Premises	Dwelling-houses
Business Premises	Dwelling-houses	Business Premises	Dwelling-houses				
213	250	84	287	158	899	51	79
834				1,057		130	
Total .. 2,021							

TABLE II.
Classification of Causes of Rat Infestation in Premises
Primarily Visited in 1938.

Cause of Infestation	Interior Infestation		Exterior Infestation		Totals	Percentage
	Business Premises	Dwelling-houses	Business Premises	Dwelling-houses		
Directly due to or associated with disused or defective drains or sewers	131	189	113	584	1,017	66.91
Nature of business carried on in premises or vicinity	21	—	2	—	23	1.51
Tips, refuse dumps, market area, etc.	12	2	1	5	20	1.32
Neglect in protection of food scraps and wrappings, poultry kept, etc.	3	2	7	145	157	10.33
Dilapidated premises or defects in structures	16	16	6	5	43	2.83
New premises, housing estates, building operations, demolitions, etc.	4	21	4	23	52	3.42
Vicinity of open or culverted water-courses, railway sidings, and cuttings	19	7	18	96	140	9.21
Condemned property	5	8	5	38	56	3.69
Cause not determined	2	5	2	3	12	0.78
Totals	213	250	158	899	1,520	100.00

Analysis of Drainage Infestation.

Infestation	Business Premises		Dwelling-houses		Totals
	Interior	Exterior	Interior	Exterior	
Total number of primary investigations into rat infestation = 100 per cent. ..	213	158	250	899	1,520
Directly due to defective or disused drains or sewers	76	90	140	510	816
Associated with defective or disused drains or sewers	55	23	49	74	201
Total number of premises affected by drainage infestation	131	113	189	584	1,017
Percentage of drainage infestation in each group	61.50	71.52	75.60	64.96	66.91

TABLE III.
Nature of Premises Infested during the Year 1938.

Particulars of Premises	Interior		Confined to Yards, Passages, Gardens, or Adjoining Lands	Totals
	Rats	Mice	Rats	
<i>Restaurants.</i> —Cafes, public-houses, etc. ..	12	1	5	18
<i>Premises where food is prepared, stored, or sold.</i> —Grocers, butchers, confectioners, bake-houses, etc.	33	34	50	117
<i>Other premises attractive to rats.</i> —Garages, stables, marine stores, etc.	15	2	19	36
<i>Land.</i> —Farms, tips, etc. .. .. .	..	..	9	9
<i>New buildings.</i> —Building estates, etc. ..	..	..	4	4
<i>Factories.</i> —Textile, engineering, joiners, plumbers, cabinet makers, printers, pattern card makers, etc.	61	11	21	93
<i>Warehouses.</i> —Cloth, iron, etc.	29	6	7	42
<i>Shops.</i> —Newsagents, outfitters, chemists, cycle, hardware, gown, wine, etc.	30	22	24	76
<i>Institutions.</i> —Hospital, school, etc.	7	1	3	11
<i>Offices</i>	14	4	1	19
<i>Unoccupied premises.</i> —Shops, offices, stables, etc.	12	3	15	30
<i>Dwelling-houses</i>	250	287	899	1,436
Totals	463	371	1,057	1,891

TABLE IV.
Destruction and Prevention Measures Carried Out
during the Year 1938.

Measures carried out	By whom carried out	Business Premises	Dwelling-houses	Totals
Prevention only	Occupier	23	153	176
Destruction only	Occupier	136	387	523
	Owner .. .. .	..	1	1
	Rat-catcher	5	11	16
Destruction, Proofing, and Prevention	Occupier	143	188	331
	Owner	1	14	15
	Rat-catcher	16	5	21
	Destruction by occupier, proofing by owner	5	57	62
	Destruction by rat-catcher, proofing by occupier	14	3	17
	Destruction by rat-catcher, proofing by owner	12	22	34
	Destruction by occupier, sewers by City Engineer's Department	93	556	649
	Destruction by occupier, drains by owner	153	298	451
Totals		601	1,695	2,296

TABLE V.

Percentage Efficiency at the End of the Year 1938 of the Work Done in Each Year during the Period 1933 to 1937.

Particulars	Year					Totals
	1933	1934	1935	1936	1937	
Number of premises reported clear of rats and mice	2,151	2,443	2,332	1,775	2,736	11,437
Number of premises at which reinfestation has occurred	117	61	67	43	18	306
Reinfested premises subsequently dealt with, again reported clear of rats and mice	89	39	43	15	1	187
Reinfested premises at which repressive measures are still in hand.. .. .	28	22	24	28	17	119
Premises dealt with at which there is no further complaint of the presence of rats or mice	2,123	2,421	2,308	1,747	2,719	11,318
Percentage of efficiency of the work done at the end of the year 1938 ..	98.69	99.09	98.97	98.42	99.37	98.95

TABLE VI.
Tracing of Rat Burrows in Relation to Drainage Infestation.

Number of examinations made by	<i>City Engineer</i>	<i>Owners and Occupiers</i>	<i>Sanitary Section</i>	TOTALS
	131	90	13	234
<i>Conditions found or action taken.</i>				
Minor defects in sewers repaired	69	..	7	76
Disused privy midden drains removed ..	15	..	1	16
Other disused drains removed or otherwise dealt with.. .. .	44	60	..	104
Defective outlet drains repaired by Cor- poration on owner's orders	19	6	..	25
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Outward rat burrows consolidated.. ..	17	5	..	22
Surface rat burrows consolidated	10	30	..	40
Undermining due to causes other than rats	3	7	..	10
Totals	182	141	52	375

**Other Drainage Examinations by Sanitary Section made
during the Year at the instance of the Rat Section.**

Premises examined in consequence of suspected drainage infestation	6
Premises at which drainage work required under notice has been completed during the year (includes work outstanding at the end of 1937)	19
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REPORT ON THE WORK OF THE CLEANSING DEPARTMENT SUPPLIED BY THE DIRECTOR OF PUBLIC CLEANSING.

Duties of the Cleansing Authority.

The Cleansing of the City is under the control of the Cleansing Committee, which is responsible for the efficient management and transaction of all matters relating to the scavenging of the City and the performance of acts and duties in connection with every branch of City cleansing as directed by the various Acts of Parliament and Local Acts now in force. In addition, the Cleansing Committee undertakes, on behalf of the Markets Committee, the cleansing of the various public markets within the City.

For administrative purposes the Department is divided into two sections :—

1. House and Trade Refuse Section—to deal with the collection, removal, and disposal of household and other refuse arising from premises in the City and the cleansing of markets.
2. Street Cleansing Section—for the scavenging of the City, watering and gritting of roadways, clearance of snowfalls, etc.

Both these sections are co-ordinated in matters of supervision, intermobility of transport and man-power, disposal facilities, use of repair and maintenance centres, and in other similar ways.

Extent of the Cleansing Department's Operations.

The volume of work necessitated to carry out the Committee's obligations is indicated in the following table, showing the collection of refuse during the year ending 31st March, 1939 :—

<i>House and Trade Refuse Section—</i>	<i>Tons</i>
Nightsoil	1,791
Slaughter-house Refuse	5,559
Bad Meat	360
Offal.. .. .	414
Fish	1,109
Ashes and Ashbin Refuse	181,654
Warehouse Refuse	13,045
Trade Refuse	10,622
Waste Paper	265
Stable Manure	480
Garbage	4,439
	<hr/>
	219,738
	<hr/> <hr/>

<i>Street Cleansing Section—</i>	<i>Loads</i>
Street Sweepings	34,018

From the above will be gained some impression of the variety of refuse and the magnitude of the Department's operations. To illustrate this still more, there are within the City 226,000 ashbins, each of which is required to be emptied at least once per week, so that this one operation alone involved no less than 11,752,000 individual house calls per annum. Similarly, the operations connected with street cleansing necessitated the sweeping of 981,435,840 square yards of surface, and the distribution of 5,212,500 gallons of water and 1,736 tons of sand and chippings on the roads, whilst over 810 tons of refuse had to be collected, treated, and disposed of every working day throughout the year.

Staff, Plant, Depots, etc.

The Committee employs, under the Director of Cleansing, a staff of about 66 officials and 1,350 workmen, and for the purpose of its work requires some 135 motor sweepers, refuse collection vehicles, tipping wagons, etc., 148 horses, and 169 hand vehicles. It utilises also 26 depots and is landlord of four estates with a total area of 3,639 acres.

The Collection of Refuse from Streets and Premises.

The collection of refuse from the City streets and premises is a matter of careful and precise organisation. Both the streets to be swept and the premises to be visited are completely scheduled and receive attention at specified times on specified days each week. The interval between cleansings is never more than seven days, and in many cases in the centre of the City clearances are made several times during a week or even daily.

Refuse Disposal.

It will be appreciated that, from an administrative standpoint, it is the effective disposal of the great mass of refuse which so quickly accumulates in a large City rather than the collection which constitutes the more difficult problem. As previously stated, there are over 253,000 tons of refuse for disposal per annum, or over 810 tons each working day, and, obviously, the sooner this waste matter, often deleterious in character, is completely disposed of in as hygienic a manner as possible, the better for general health, comfort, and well-being.

Methods of Refuse Disposal.

To an inland town there are generally four main methods of refuse disposal available, viz. :—

Disposal inside depot :—

1. Incineration.
2. Separation and Incineration.

Disposal outside depot :—

3. Land reclamation and sale to farmers.
4. Controlled tipping.

Taking the four above-mentioned methods *seriatim* they may be briefly described as follows :—

Incineration.

The refuse is delivered into the depot and after a very elementary separation of metals, brickbats, etc., is burnt in forced-draught furnaces or boilers.

Separation and Incineration.

This method treats the refuse, as received, by machinery designed to separate the refuse into various parts—firstly, to divide it into burnable and unburnable elements, and secondly, to extract such components as dust, cinders, metals, etc., with a view to further utilisation. As an inside depot method of disposal the separation method is more economical and has a number of other advantages over the older straight incineration method.

Land Reclamation.

Excellent examples of pure land reclamation are given by the Manchester Corporation's estates at Carrington and Chat Moss which, originally raw moss, have been converted into flourishing agricultural communities producing a rental of more than £7,000 a year. Land reclamation such as this, however, is generally only commenced when an outlet is required for refuse having a manurial value, like the contents of the pail-closets, which are practically extinct to-day in Manchester.

Controlled Tipping.

This form of refuse disposal must not be confused with the ancient discredited open dumping. It is a modern, scientific, and hygienic method, consisting of depositing the refuse in layers of a specified depth and sealing each layer with earth or other suitable material at the end of the day, meanwhile taking certain precautions to prevent flies and vermin.

Extensive experiments and tests carried out by the technical staff of the Cleansing Department proved that controlled tipping was a safe and hygienic method of refuse disposal.

When properly carried out it gives an economic and highly efficient means of disposing of the refuse, and, as may be seen at various places within the Manchester boundary, this method is of great value in reclaiming otherwise waste lands (such as old quarries, land subject to flooding, etc.), which are easily converted into playing fields or pleasure grounds after the tipping and sealing have been completed.

The Future of Manchester Cleansing.

The Cleansing Committee is alive to the need for keeping up to date and has adopted a policy based on the slogan "Efficiency with Economy." In pursuance of this policy the Committee is gradually mechanising its transport; has installed three separation plants of the most modern type; looked after the welfare of its workmen by installing baths, wash-bowls, dining rooms, etc., at the depots; and, by using otherwise excessive space at certain depots to form flower beds and grass plots, has completely changed these depots from the old, drab, town's yards into places with some pretensions to beauty.

That the policy is a sound one is evidenced by the fact that the estimates for the current financial year, whilst providing for a standard of work equal to or better than any in the past, show a saving in cost compared with the year 1931 of no less than £94,450 per annum.

The progressive programme of reorganisation and reconstruction throughout the Department, upon which, as indicated, a commencement has been made, will keep Manchester, it is believed, in the forefront of the world's cleansing authorities.

SPECIAL REPORT.

MANCHESTER AND DISTRICT
REGIONAL SMOKE ABATEMENT COMMITTEE.

**Report of the Honorary Secretary on the Work of the Committee
for the Year 1938.**

Proposed South-East Lancashire Joint Smoke Abatement Board.

More definite progress towards the formation of a statutory joint board was made during the year. A conference of all the authorities within the regional area was held on the 25th October, at which it was decided that a joint board should be formed. So far the following local authorities have agreed to become constituent members of the board :—

Manchester.	Horwich.
Oldham.	Kearsley.
Stockport.	Newton-in-Makerfield.
Stretford.	Ramsbottom.
Audenshaw.	Royton.
Chadderton.	Tyldesley.
Denton.	Urmston.
Droylsden.	Wardle.
Failsworth.	Westhoughton.
Farnworth.	Worsley.
Golborne.	Warrington.

A meeting of representatives of these authorities was held on the 29th November, when the following Committee was elected for the purpose of preparing a draft Order of Constitution for submission to the authorities concerned :—

The Chairman of the Regional Committee—Alderman W. T. Jackson (Manchester).

The Deputy Chairman of the Regional Committee—Councillor J. Bardsley (Denton).

The Honorary Secretary of the Regional Committee—Dr. R. Veitch Clark (Medical Officer of Health, Manchester).

County Boroughs.

Mr. Harry Bann, Town Clerk, Rochdale.

Dr. J. T. C. Keddie, Medical Officer of Health, Oldham.

Municipal Boroughs.

Mr. Charles Trewavas, Town Clerk, Stretford.

A Medical Officer of Health (to be elected).

Urban District Councils.

Mr. James Seddon, Clerk to the Council, Horwich.

Dr. A. G. Glass, Medical Officer of Health, Farnworth.

Preparation of the draft Order is well in hand, but it will be appreciated that, owing to the precedence given to Air Raid Precautions and Civil Defence work at the specific request of the Government, it has not been possible yet to reach the stage at which formal approach to the Ministry can be made.

Burning Spoil Banks.

The following resolution was passed by the Executive Committee and copies were forwarded to all authorities within the regional area and all Members of Parliament for the area :—

“ That this Committee welcomes the Bill introduced into the House of Commons by Mr. J. J. Lawson, M.P., with the object of dealing with burning spoil banks and urges the Government to give full and immediate support in making legislation effective.”

Replies received from the authorities and a number of Members of Parliament indicated that they were willing to support the objects of the Bill, and it may be noted that the “ Public Health (Coal Mines Refuse) Bill ” passed the House of Commons on the 21st April, 1939.

Address by Mr. Charles Gandy.

At the July meeting of the full Committee an address was given by Mr. Charles Gandy, Chairman of the National Smoke Abatement Society, entitled “ The Winning Fight Against Smoke.” The Committee feel that Mr. Gandy’s outlook was of very definite psychological value, and therefore record the following short precis of his address, which has been approved by him :—

Mr. Gandy, in the course of his most interesting and instructive address, expressed the opinion that the fight against smoke, which has been waged for so many years with little apparent success, is about to enter upon a new and more interesting stage and become one of the more immediate concerns not only of government and municipal representatives and officials but of the public generally. The signs of progress in this direction are to be found in (1) the changed attitude of public opinion ; (2) in the technical and industrial fields ; and (3) in administration. He referred to the focussing of public opinion on the subject from more publicity through the press, the rapidly increasing use of gas, electricity, oil, and solid smokeless fuels, and the establishment of more regional smoke abatement committees. Of the latter there are now eight, viz. : Manchester and District, West Riding of Yorkshire, Midland, West Lancashire and Cheshire, Northumberland and Durham, Greater London, Bristol and District, and the Sheffield, Rotherham, and District. The last named is the only statutory smoke abatement committee in the country.

After giving many details in support of his views, Mr. Gandy paid tribute to the work of the Manchester and District Regional Committee and said the Committee had now a greater chance of consolidating the gains which have been made since the formation in 1924; the work has been popularised, and the Committee can now build on those foundations a system of regional control through qualified inspection which will gradually bring all parts of the area to the best attainable standard, thereby reducing to a minimum the pollution of the atmosphere from the larger sources of pollution. In regard to the other sources, namely, the chimneys of houses and offices, the Regional Committee may later have important work in the co-ordination of control.

Classes for Boiler Firemen.

The following are details of the courses held at the Manchester Municipal College of Technology during the session 1937-39 :—

Sixty-one students enrolled for the elementary course. Of these, forty-nine sat for the examination, thirty-five of whom satisfied the examiners and were awarded certificates by the Regional Committee.

This elementary course was originally arranged at the instance of the Regional Committee who have a high regard for its value in the training of boiler firemen for the more efficient working of boiler plants.

In addition to the elementary classes, more advanced courses were held, particulars of which are as follow :—

2nd year course : 76 students enrolled, 41 sat for the examination, 35 of whom satisfied the examiners.

3rd year course : 14 students enrolled, 6 sat for the examination, 5 of whom satisfied the examiners.

An examination in boiler-house practice under the auspices of the City and Guilds of London Institute was also held. Thirty students sat for this examination. Of these, eight obtained first class passes, eleven second class passes, and eleven failed.

Similar courses have been arranged for the session 1938-39. Posters and leaflets giving particulars of these courses have been sent to the local authorities affiliated to the Committee for distribution in their districts, together with copies of the list of students and examination results.

A course of lecture and demonstrations in fuel economy and smoke abatement was also held at Warrington under the auspices of the Health Committee. Seventeen students were enrolled for this course, fourteen of whom sat for the examination. Of these, 11 were successful and were awarded certificates by the Regional Committee who conducted the examination.

National Smoke Abatement Society.

The following members of the Committee attended the Annual Conference of the National Smoke Abatement Society at Cardiff :—

Alderman Jackson (Manchester), Chairman of the Committee.

Councillor J. Bardsley (Denton), Deputy Chairman of the Committee.

Councillor J. W. Davenport (Tyldesley).

Councillor H. Stewart (Urmston).

The arrangement for copies of the Society's quarterly journal to be forwarded to members of the Executive Committee has been continued.

Literature.

The Committee purchased 2,500 copies of the booklet " Britain's Burning Shame " for distribution to the local authorities in the Regional area.

Co-operation with the Coal Utilisation Council.

In May, 1936, the Coal Utilisation Council approached the Regional Committee with the suggestion that some co-operation between the two bodies might be mutually useful, and offered the free services of Mr. P. D. Kirkman, their Combustion Engineer for the area, in advising manufacturers of methods of smoke prevention. The Committee accepted this offer and letters were sent to local authorities pointing out the value of enlisting the services of Mr. Kirkman. This has been done in many instances and is greatly appreciated by the manufacturers concerned, and it is noted with satisfaction that this excellent work is being continued.

Membership.

At the close of the year 53 authorities were affiliated to the Committee, a reduction of three compared with the previous year.

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